



CITY OF BRADFORD

---

ANNUAL REPORT  
OF THE  
MEDICAL OFFICER

1938

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IDLE, BRADFORD:  
WATMOUGHS LIMITED, PRINTERS.



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## PREFACE.

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The following report on the health of the City has been compiled along the lines laid down in the Memorandum of the Ministry of Health.

The chief vital statistics for the year 1938 were :—

Estimated population	...	...	288,700
Birth-rate	...	...	13·51 per 1,000 of population
Death-rate	...	...	13·76 per 1,000 of population
Zymotic death-rate	...	...	0·26 per 1,000 of population
Tuberculosis death-rate	...	...	0·63 per 1,000 of population
Infantile Mortality rate	...	...	58 per 1,000 births
Maternal mortality rate	...	...	4·15 per 1,000 total births

As compared with 1937 these figures show a decrease of 0·34 in the birth-rate and a decrease of 0·86 in the death-rate. There was a decrease of 0·08 in the zymotic death-rate, and a decrease of 0·14 in the tuberculosis death-rate, while the infantile mortality showed a decrease of 11. The maternal mortality rate showed an increase of 1·53 per 1,000 total births.

JOHN J. BUCHAN,

*Medical Officer of Health.*

TOWN HALL, BRADFORD,

31st July, 1939.

## I.—VITAL STATISTICS.

*Area and Population.* The City of Bradford has an area of 25,504 acres, and the population as adjusted by the Registrar General for the middle of 1938 is 288,700.

## DISTRIBUTION AND DENSITY OF POPULATION.

Wards					Estimated Population, 1938	Area of Wards in Acres	Persons per Acre
Allerton	...	...	...	...	15,204	2,324	6·5
Bolton	...	...	...	...	12,191	1,044	11·7
Bradford Moor	...	...	...	...	16,986	435	39·0
Clayton	...	...	...	...	10,191	1,888	5·4
East Bowling	...	...	...	...	14,526	571	25·5
Eccleshill	...	...	...	...	14,939	1,135	13·2
Exchange	...	...	...	...	13,096	430	30·5
Great Horton	...	...	...	...	16,769	848	19·8
Heaton	...	...	...	...	14,977	883	17·0
Idle	...	...	...	...	10,728	2,898	3·7
Listerhills	...	...	...	...	15,148	413	36·7
Little Horton	...	...	...	...	12,987	322	40·3
Manningham	...	...	...	...	15,277	368	41·5
North East	...	...	...	...	14,387	557	25·8
North Bierley East	...	...	...	...	16,766	3,139	5·3
North Bierley West	...	...	...	...	17,263	1,142	15·1
South	...	...	...	...	13,941	414	33·7
Thornton	...	...	...	...	11,869	2,791	4·3
Tong	...	...	...	...	14,506	2,998	4·8
West Bowling	...	...	...	...	16,949	904	18·7
City	...	...	...	...	288,700	25,504	11·3

The average density of population varies from 3·7 persons per acre in the Idle Ward to 41·5 in the Manningham Ward.

*Births.* The number of births registered during the year was 3,900, of which 1,999 were males and 1,901 females. This gives a birth-rate for the year of 13·51 per 1,000, a decrease of 0·34 per 1,000, from last year.

AVERAGE QUINQUENNIAL BIRTH-RATES FROM 1876.

1876-80	...	35·6	1901-05	...	22·6	1926-30	...	15·2
1881-85	...	31·1	1906-10	...	20·1	1931-35	...	13·5
1886-90	...	29·8	1911-15	...	19·0	1936	...	13·4
1891-95	...	27·5	1916-20	...	15·4	1937	...	13·8
1896-00	...	25·1	1921-25	...	17·9	1938	...	13·5

*Illegitimacy.* Of the 3,900 births registered, 220 or 5·6 per cent., were illegitimate. This rate is 0·3 per cent. higher than in 1937.

*Deaths.* The total deaths occurring in Bradford in 1938 was 4,155, after making additions and deductions of persons dying away from their place of residence the number becomes 3,974. The corrected death-rate is therefore 13·76 per 1,000, or 0·88 per 1,000 lower than in 1937.

AVERAGE QUINQUENNIAL DEATH-RATES FROM 1876.

1876-80	...	22·3	1901-05	...	16·3	1926-30	...	14·2
1881-85	...	19·9	1906-10	...	15·1	1931-35	...	14·1
1886-90	...	20·9	1911-15	...	15·5	1936	...	14·9
1891-95	...	19·7	1916-20	...	16·0	1937	...	14·6
1896-00	...	17·9	1921-25	...	14·1	1938	...	13·8

The death-rate among the male population in 1938 was 14·88, and among the female population 12·82 per 1,000.

The birth and death-rates in the various wards of the city are set out in the table on page 7.

## BIRTH AND DEATH RATE IN EACH WARD.

Ward	Number		Rates per 1000	
	Births	Deaths	Births	Deaths
Allerton ... ..	152	183	10·00	12·04
Bolton ... ..	171	139	14·03	11·40
Bradford Moor...	215	241	12·66	14·19
Clayton ... ..	118	84	11·58	8·24
East Bowling ... ..	229	227	15·76	15·63
Eccleshill ... ..	196	173	13·12	11·59
Exchange ... ..	187	205	14·28	15·65
Great Horton ... ..	157	252	9·36	15·03
Heaton ... ..	163	203	10·88	13·55
Idle ... ..	123	127	11·47	11·84
Listerhills ... ..	226	228	14·92	15·05
Little Horton ... ..	216	245	16·63	18·87
Manningham ... ..	268	223	17·54	14·60
North East ... ..	233	226	16·19	15·71
North Bierley East ...	266	214	15·87	12·76
North Bierley West ...	204	214	11·82	12·40
South ... ..	248	219	17·79	15·71
Thornton ... ..	149	128	12·55	10·78
Tong ... ..	185	164	12·75	11·31
West Bowling ... ..	194	279	11·45	16·46
City ... ..	3,900	3,974	13·51	13·76

*Mortality at Different Ages.* The following Table shows the total deaths in each age group during the past six years.

NUMBER OF DEATHS IN EACH YEAR AT DIFFERENT AGE PERIODS.

Age	1933	1934	1935	1936	1937	1938
Under 1 year	310	249	253	321	278	228
1—2 years	59	41	58	49	33	32
2—5 „	71	68	73	51	47	29
5—15 „	82	99	84	89	80	64
15—25 „	109	104	102	91	115	79
25—35 „	166	152	140	134	136	113
35—45 „	248	212	202	225	226	207
45—55 „	471	408	399	438	412	357
55—65 „	803	761	818	801	811	785
65—75 „	1112	962	1123	1159	1120	1144
over 75 „	901	864	921	978	980	936

The infantile mortality rate for 1938 was 58 per 1,000 births, as against 69 for 1937, while the maternal mortality rate was 4.15 per 1,000 total births, as compared with 2.62 in 1937. The mortality between one and sixty-five years was 6.4 per 1,000, and over sixty-five years 9.4 per 1,000.

*Public Institutions.* The accommodation in all kinds of institutions available for Bradford amounts to more than 3,800 beds or 1.3 per cent of the population, or about 1 in 80.

## VOLUNTARY HOSPITALS, 1938.

Hospital	Number of beds	Character of cases	Cases admitted to Hospital	Cases treated in outdoor department's
Bradford Royal Infirmary ...	415	General ...	6,797	23,626*
Bradford Children's Hospital	110	Children ...	2,073	4,930
Royal Eye and Ear Hospital...	94	Eye and Ear	3,838	13,439
Totals ... ..	619	—	12,708	41,995

\* Exclusive of dental cases.

At the out-patient department of the Bradford Royal Infirmary 289 persons were treated as out-patients, and 6,337 as casualty cases, and 961 as dental cases. The number of attendances made by out-patients was 83,559, and by casualty cases 21,055.

The total number of patients admitted to municipal hospitals in 1938 was 10,553. The nature of the cases is given elsewhere in this report in dealing with each hospital. On the 31st December, 1938, there were 332 patients maintained in institutions for the mentally defective.

At the end of the year the number of persons in receipt of relief in Bradford was: Institutional, 986; and Domiciliary, 6,508, equal to 9 per 1,000 of the population.

## PROPORTION PER 1,000 OF POPULATION IN RECEIPT OF RELIEF.

	Indoor	Outdoor	Total Chargeable
England and Wales ... ..	3·7	22·3	26·0
Bradford ... ..	3·4	22·5	25·9

The number of deaths in public institutions is given in the tables on pages 10 and 11.

## DEATHS IN PUBLIC INSTITUTIONS.

Name of Institution	1936	1937	1938
Bradford Public Assistance Institutions ... ..	88	96	74
Clayton Public Assistance Institution ... ..	22	20	13
Other Public Assistance Institutions ... ..	1	4	1
Menston Asylum ... ..	66	61	72
Storthes Hall Asylum ... ..	16	13	9
Other Asylums ... ..	2	7	6
Royal Infirmary ... ..	198	232	227
Duke of York Home ... ..	29	38	37
Children's Hospital ... ..	60	87	72
Eye and Ear Hospital ... ..	16	14	9
St. Catherine's Home ... ..	15	12	21
Other Voluntary Hospitals ... ..	20	15	27
St. Luke's Hospital ... ..	1,227	1,190	1,112
Leeds Road Hospital ... ..	83	67	47
Bierley Hall Hospital ... ..	35	37	26
Grassington Sanatorium ... ..	3	2	3
North Bierley Joint Hospital ... ..	2	—	—
Calverley Joint Hospital... ..	1	8	—
Other Institutions ... ..	15	14	14
Total ... ..	1,899	1,917	1,770

It will be noted that in 1938 88 deaths, or 2·2 per cent. of the total deaths, occurred in Public Assistance Institutions; 87 deaths, or 2·2 per cent., in Lunatic Asylums; 393 deaths, or 9·9 per cent., in Voluntary Hospitals; and 1,188 deaths, or 29·6 per cent., in Municipal Hospitals.

The percentage of the total deaths in the city occurring in public institutions in 1938 was 44·5. During the past 20 years there has been a continuous increase in the proportion of deaths occurring in public institutions, the rise in the percentage of total deaths being from under 25 per cent. to 45.

The age incidence of deaths in Public Institutions is shown in the following table :—

Age period	Public Assistance Institutions	Lunatic Asylums	Voluntary Hospitals	Municipal Hospitals	Other Institutions	Total	Per cent. of Deaths at each age
Under 1	1	—	47	75	6	129	56·6
1— 2	—	—	10	8	—	18	56·2
2— 5	—	—	13	10	—	23	79·3
5—15	—	—	13	35	—	48	75·0
15—25	—	3	13	35	1	52	65·8
25—35	—	1	19	45	—	65	57·5
35—45	2	9	34	78	1	124	59·9
45—55	1	21	50	96	3	171	47·9
55—65	5	23	85	265	1	379	49·6
65—75	31	22	91	319	2	465	40·7
75 and over	48	8	18	222	—	296	31·6
Total ...	88	87	393	1,188	14	1,770	44·5

This table shows that nearly 63 per cent. of the deaths between one year and forty-five years in the City occur in Public Institutions.

*Certification of Deaths.* 3,439 deaths, or 86·5 per cent., were certified by medical practitioners, 364, or 8·6 per cent., by the coroner after inquest, and 106 or 2·5 per cent., where, after inquiries were made by the coroner, it was found that inquests were unnecessary. The table on the following page shows the causes of death as found at the inquests held.

## RETURN SHOWING THE NUMBER OF INQUESTS HELD, AND VERDICTS

RETURNED DURING THE YEAR ENDED 31ST DECEMBER, 1938.

CAUSE OF DEATH	Wilful Murder	Manslaughter	Temporary Insanity	Intemperance	Silicosis and Industrial	Negligence	Accidental	Operations and Anæsthetics	Natural Causes	Open Verdicts	Totals	Remarks
Violence...	1	2	...	...	...	...	...	...	...	...	3	
Burns & Scalds	...	...	...	...	...	...	15	...	...	...	15	
Railways	...	...	...	...	...	...	2	...	...	...	2	
Motors ...	...	1	...	...	...	2	24	...	...	4	31	
Other Vehicles	...	...	...	...	...	...	7	...	...	...	7	
Machinery	...	...	...	...	...	...	3	...	...	...	3	
Falls ...	...	...	...	...	...	...	65	...	...	...	65	
Suffocation	...	...	...	...	...	...	1	...	...	...	1	
Drowning	...	...	...	...	...	...	3	...	...	...	3	
Poisoning	...	...	...	...	...	...	3	...	...	...	3	
Other Causes	...	...	...	5	3	...	18	8	...	8	42	
SUICIDES:—												
Drowning	...	...	11	...	...	...	...	...	...	...	11	
Hanging	...	...	3	...	...	...	...	...	...	...	3	
Poisoning	...	...	29	...	...	...	...	...	...	...	29	
Other Means	...	...	3	...	...	...	...	...	...	...	3	
Natural Causes	...	...	...	...	...	...	...	...	195	...	195	
Totals	1	3	46	5	3	2	141	8	195	12	416	

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**TABLE A.**  
**VITAL STATISTICS OF BRADFORD FROM 1907.**

Year	Population	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Mortality Rate
1907	285,189	20·1	14·7	0·91	124
1908	286,071	21·0	15·7	1·46	143
1909	286,954	19·2	14·6	0·68	116
1910	287,839	19·1	14·3	1·26	127
1911	288,723	19·0	15·0	1·60	140
1912	289,618	19·3	14·5	0·82	98
1913	290,540	19·6	15·1	1·10	128
1914	291,482	19·6	15·7	1·22	122
1915	*280,737	17·4	16·9	1·22	123
1916	*271,105	16·67	15·99	0·61	118
1917	*266,338	13·06	15·34	0·81	132
1918	*259,707	13·30	19·13	1·07	123
1919	*282,714	13·40	16·27	0·31	113
1920	293,979	20·52	13·31	0·42	93
1921	291,100	19·57	13·72	0·66	109
1922	291,300	17·92	14·02	0·36	87
1923	290,800	18·19	13·75	0·48	78
1924	290,200	16·94	14·86	0·31	92
1925	290,200	16·63	13·97	0·65	95
1926	288,700	16·31	13·58	0·47	92
1927	293,200	14·73	14·57	0·52	92
1928	288,500	15·32	13·60	0·38	69
1929	289,200	15·03	15·66	0·50	80
1930	293,254	14·92	13·45	0·44	75
1931	300,900	13·56	14·21	0·24	71
1932	296,300	13·56	13·89	0·26	75
1933	295,100	13·22	14·68	0·32	79
1934	293,650	13·68	13·35	0·34	62
1935	292,200	13·55	14·28	0·38	64
1936	290,500	13·42	14·93	0·43	82
1937	289,510	13·85	14·64	0·34	69
1938	288,700	13·51	13·76	0·26	58

\* Civil population.

## II.—SANITARY CIRCUMSTANCES OF BRADFORD.

(A) *Water.* The water supply of Bradford, as provided by the Corporation Waterworks, is obtained from several upland surface sources and is distributed throughout the city by gravitation. The supply is constant and the water, on chemical analysis, exhibits a high standard of purity. Samples are taken regularly from the various sources of supply and distributing points in the City and the bacteriological results of the examinations made are shown on pages 108 and 109. Generally the water is a soft upland water and one source of supply only exhibits in its natural state any appreciable degree of plumbo-solvency. This is the supply from Thornton Moor, 1,241 feet above sea level, where water is collected from peaty uplands to the west of the city. This water is treated at the reservoir to reduce the plumbo-solvency.

### *Average Results of Analyses for Plumbo-solvency of Water as distributed.*

	Grains per Gallon	
	Lead	Lead taken up in 24 hours
THORNTON MOOR WATER SUPPLY.		
45 samples before 8 a.m. ... ..	0.0015	0.0803
45 samples after 1 p.m. ... ..	0.0008	0.0833
INTERMEDIATE LEVEL SUPPLY.		
45 samples before 8 a.m. ... ..	0.0000	0.0417
45 samples after 1 p.m. ... ..	0.0000	0.0443
LOW LEVEL WATER SUPPLY.		
45 samples before 8 a.m. ... ..	0.0023	0.0830
45 samples after 1 p.m. ... ..	0.0028	0.0707

At the end of 1938, 45 farms and 118 houses in isolated localities were not connected with the Corporation mains. The supplies in these cases were under constant supervision. There were 46 samples of suspected water submitted for chemical examination, of which 21 were reported against.

The number of notices served to secure a proper water supply (Sec. 53 Bradford Corporation Act, 1925) was 16, affecting 36 houses and farms.

(B) *Drainage and Sewerage.* There are 193 farms and 800 houses not connected with the Corporation sewers, 38 of the farms and 56 houses being in the Clayton area. Four houses have been connected during the year.

(C) *Closet Accommodation and Scavenging.* During the year 387 new water closets were provided. These included 85 additional water closets for dwelling-houses. One hundred and fifty-two water closets were substituted for waste water closets (tippler), and 4 were substituted for privies, the ashpits in connection with them being replaced by dust bins. One hundred and twenty-one water closets were provided for factories and workshops, and 25 for other premises.

# ESTIMATE OF SANITARY ACCOMMODATION AT THE END OF 1938.

## (i.) Dwelling-houses.

	No. of Houses	Water Closets	Waste Water Closets	Privies
More than one sanitary convenience to each house ...	7185	13141	—	—
	179	—	412	—
	2	—	—	3
One to each house ...	59860	59860	—	—
	4530	—	4530	—
	167	—	—	167
Less than one to each house	18185	9677	—	—
	112	—	55	—
	690	—	—	325
Totals ...	90910	82678	4997	495

Apart from the houses in clearance areas, the work of conversion of privy middens has now been practically completed, the remaining number being on farms and outlying houses in the city where sewers are not reasonably available.

SUMMARY.				Number	Percentage
Houses with water closets ...	...	...	...	85,230	93·7
Houses with waste water closets ...	...	...	...	4,821	5·3
Houses with privies ...	...	...	...	859	1·0

(ii.) **Business and other Premises.**

	No. of Premises	Water Closets	Privies
Factories, workshops, and other business premises ...	4944	13040	18
Places of worship, schools, public institutions, clubs, &c.	736	4772	54
Totals ...	5680	17812	72

1938			
Number of water closets ...	...	...	100,490
Number of waste water closets ...	...	...	4,997
Number of privies ...	...	...	567
			————— 106,054

Number of dry ashpits ...	...	...	275
Number of dust bins ...	...	...	106,540
			————— 106,815

PROGRESS OF THE PROVISION OF WATER CLOSET ACCOMMODATION IN  
EXISTING PREMISES.

Year	Dwellinghouses W.C's.	Factories and Workshops W.C's.	Other Premises W.C's.	Totals W.C's.
1928	432	115	32	579
1929	369	111	19	499
1930	289	87	28	404
1931	276	64	15	355
1932	332	103	20	455
1933	336	99	42	477
1934	259	66	49	374
1935	280	157	55	492
1936	271	176	45	492
1937	1020	106	41	1167
1938	256	116	19	391

The number of times each ashpit was emptied by the Cleansing Department during the year was on the average 9. The dust bins are emptied each week. During the year 173 dust bins have been provided and 138 ashpits abolished.

Three hundred and forty-four plans have been approved by the Health Committee for the construction of works, as follows:—256 water closets affecting 257 dwelling-houses; 6 water closets affecting 4 licensed premises; 2 urinals affecting 2 licensed premises; 116 water closets affecting 68 factories and workshops; 19 water closets affecting schools, clubs, and other premises, and 4 reconstruction schemes affecting 22 dwelling-houses, and 12 for conversion of houses into flats.

(D) *Sanitary Inspection of District.* The number of tests to drains and sanitary fittings made by the Sanitary Inspectors during the year was 4,496, of which 2,194 were volatile tests with 180 positive results, 1,747 were coloured water tests with 304 positive results, 38 smoke tests with 23 positive results. In 1,699 of the houses tested infectious disease was present, in 631 cases of diphtheria with 1 positive result, in 4 cases of enteric fever with no positive result, and in 1,064 other diseases with 13 positive results. In 61 cases the system of drainage was such as to render impracticable the application of a test.

The drainage of 17 blocks of property, comprising 87 houses, was dealt with under Section 48 of the Public Health Act, 1936, as against 68 houses last year. The defects were found as the result of tests applied to the drains.

The District Sanitary Inspectors have made 67,395 inspections and visits for the investigation and suppression of nuisances. The total number of nuisances reported was 4,924. The statement on the following pages shows the nature and the amount of work performed by the Inspectors during the year, together with the figures for the five preceding years for comparison.

During the year 3,453 complaints as to nuisance were received, as against 2,576 the previous year. The number of statutory notices served for the abatement of nuisances was 1,295, as against 799 last year. The number of preliminary notices served for dangerous places to be made secure was none. There were 51 of these places dealt with, as against 47 last year. Five cases were reported for prosecution at the City Court for failing to obey nuisance orders; in three cases defendants were fined £2 10s. 0d. and 10s. 0d. costs, and two cases were withdrawn.

#### PARTICULARS OF WORK DONE, 1933-1938.

<i>Routine Visits and Inspections:—</i>	1933	1934	1935	1936	1937	1938
No. of Houses inspected under Public Health Acts ... ..	9777	6975	6016	6874	7015	10752
No. of Houses in respect of which notices were served requiring defects to be remedied ...	3207	1335	1023	294	1108	1623
No. of Houses where defects remedied after formal notice:—						
(a) By owners ... ..	3161	1662	1369	1199	1560	1580
(b) By L.A. on default ...	20	13	36	18	42	16
No. of ordinary visits ... ..	26170	17901	16193	33669	24511	35593
No. of Houses rendered fit without service of formal notices...	1704	524	435	124	754	1657
<i>Inspections and Visits:—</i>						
No. of complaints investigated...	2062	2160	2688	3077	2576	3453
No. of ordinary visits and inspections (other than dwelling-houses) ... ..	2984	1039	974	440	347	1440
No. of Factories and Workshops visits and inspections ...	3007	1038	1390	1138	941	2414
No. of Offensive Trade Premises visits and inspections...	171	183	277	173	138	320
No. of Schools inspected ...	332	177	82	117	126	524
No. of Graveyards inspected ...	24	8	2	3	3	125
No. of visits to Common Lodging Houses: ... ..	173	105	135	177	167	197

	1933	1934	1935	1936	1937	1938
No. of Houses let in lodgings visited ... ..	283	264	51	495	213	12
No. of Canal Boats inspected ...	46	32	21	32	31	28
No. of Cinema visits ... ..	104	56	37	30	49	270
No. of Piggeries visited ... ..	284	164	103	23	65	71

*Drainage and Sanitary Arrangements:—*

Choked drains cleansed ... ..	463	337	393	253	412	522
Drains amended ... ..	546	295	211	223	233	327
Drains reconstructed ... ..	270	166	129	192	885	447
Extra drains provided ... ..	163	72	100	162	69	186
Cellars drained ... ..	29	13	3	16	18	24
Drains underneath houses abolished ... ..	38	13	11	1	15	13
Drainage systems intercepted from sewer ... ..	9	6	10	5	24	38
Open drain inlets trapped ...	72	12	8	5	4	16
Waste pipes trapped ... ..	90	41	29	21	10	61
Waste pipes disconnected ... ..	94	27	22	19	24	89
Rainwater pipes disconnected ...	140	53	60	53	45	131
Rainwater conductors repaired or renewed ... ..	1595	327	390	357	344	522
Sinks repaired or renewed ... ..	320	138	217	210	162	121
New sinks provided ... ..	273	168	159	144	95	89
No. of Houses reported for provision of Water Closets ...	72	3	21	18	394	43
Water closet pedestals renewed	133	77	70	121	113	70
Water closets and flushing apparatus repaired ... ..	247	135	110	115	113	114
Water closets cleansed ... ..	17	48	13	16	11	24
Water closet apartments cleansed and limewashed ... ..	79	31	7	4	7	64
W. C. apartments properly lighted and ventilated ... ..	28	13	30	7	13	13
General repairs to Water Closets	545	211	201	178	161	140
Additional W.C. accommodation provided ... ..	116	89	67	69	474	137
Soil pipes repaired or renewed ...	132	29	41	30	14	27
Indoor soil pipes abolished ...	4	2	3	—	53	4
Privy apartments cleansed and limewashed ... ..	—	1	1	—	—	—
Privy structures abolished ... ..	77	34	12	15	34	28
Deposits of slops in ashpits prohibited ... ..	4	1	—	—	2	5
Ashpits abolished ... ..	1597	521	190	141	109	138
Dust bins repaired or renewed...	457	446	310	381	423	1001
Houses provided with new dust bins ... ..	3415	953	381	255	136	173
Urinals cleansed, amended, or screened ... ..	8	5	13	5	16	25
Urinals remodelled ... ..	6	6	4	6	2	6
New urinals provided ... ..	4	14	4	5	3	2

*Dwelling-houses, etc.:—*

	1933	1934	1935	1936	1937	1938
Dampness excluded ... ..	799	336	286	347	229	369
Roofs repaired ... ..	684	186	290	303	215	248
Houses or parts cleansed and limewashed ... ..	74	13	27	40	35	104
Verminous houses dealt with ...	125	16	41	59	37	181
Ventilation Improved ... ..	1193	397	269	200	187	126
Windowcords repaired or renewed	1291	345	243	195	206	141
Lighting improved ... ..	269	80	89	74	56	17
General repairs executed ...	4924	1676	1719	1400	1139	882
Kitchen ranges repaired or re- newed ... ..	697	208	210	174	152	109
Washing coppers provided or re- newed ... ..	131	60	48	30	27	26
Handrails provided ... ..	13	12	9	4	2	6
New food stores provided and ventilated ... ..	113	76	57	48	27	9
Water supply improved... ..	74	26	20	36	46	132
Houses supplied with water ...	16	17	5	9	1	10
Outbuildings repaired ... ..	132	51	16	20	21	13
Overcrowding abated ... ..	44	25	25	375	364	367
Cellar areas cleansed ... ..	7	6	2	2	—	5

*Courts, Back-yards, Stable-yards, etc.:—*

Yard and passage paving repaired	708	194	140	98	76	45
Yards repaved ... ..	9	24	14	19	3	9
Yards and passages newly paved	5	6	1	7	6	2
Yards cleansed ... ..	21	19	13	22	53	59
Passages cleansed and limewashed	275	42	1	9	2	25
Manure pits repaired ... ..	2	3	3	2	—	2
Manure pits provided ... ..	1	—	—	1	3	—

*Keeping of Animals, etc.:—*

Improper keeping of swine pro- hibited ... ..	—	—	5	2	2	—
Piggeries repaired ... ..	1	3	—	—	1	1
New Piggeries provided... ..	—	—	—	—	—	—
Piggeries abolished or disused ...	6	2	11	1	6	1
Improper keeping of fowls, etc., prohibited ... ..	18	11	36	9	15	4
Accumulationsofoffensivematter, etc., removed ... ..	49	46	39	26	22	67
Accumulationsofmanureremoved	18	14	13	10	8	17

*Infectious Diseases:—*

No. of Zymotic Diseases investi- gated ... ..	3455	4399	4682	3720	4057	3653
--	------	------	------	------	------	------

*Factories and Workshops:—*

Ventilation improved ... ..	26	31	51	4	8	—
Lighting improved:—						
(a) Day ... ..	1	18	13	26	59	68
(b) Night ... ..	7	2	12	34	59	194
Intervening space provided to W.C.'s ... ..	41	78	112	125	6	167

	1933	1934	1935	1936	1937	1938
Separate approaches to W.C.'s provided ... ..	1	4	16	2	3	—
Screening, Doors and Fastenings provided ... ..	10	19	20	13	3	11
Additional W.C.'s provided ... ..	25	25	30	80	71	37
New Urinals provided ... ..	7	4	1	7	4	5
Cleansed and linewashed ... ..	20	9	4	10	3	41
Ventilation to W.C.'s provided...	—	—	—	—	—	39

*Drain Testing:—*

Number of volatile tests:—

Positive ... ..	281	407	212	158	217	162
Negative ... ..	2553	4364	2740	2183	2934	2141

Number of colour tests:—

Positive ... ..	267	138	146	187	270	321
Negative ... ..	1616	1549	1637	1527	2706	1800

Number of smoke tests (Rocket):—

Positive ... ..	10	14	12	11	13	25
Negative ... ..	27	41	11	20	28	43

*Miscellaneous Nuisances:—*

Dangerous places referred to City Engineer ... ..	63	23	37	27	45	65
Dangerous places made secure ...	48	18	28	16	31	39
Choked Street Gulleys reported	96	42	20	44	42	61
Wastes of Water reported ...	82	24	12	37	40	61
Samples of Water taken for:—						
(a) Chemical Analysis ...	301	313	301	283	285	343
(b) Bacteriological Examination ... ..	98	91	88	79	87	493
Premises dealt with under Rats and Mice (D) Act, 1919 ...	18	46	21	25	71	107
Offensive Trades... ..	24	2	—	—	2	1
Effluvium Nuisances abated ...	12	11	6	15	20	46

The number of visits made to Burial Grounds in the City was 125 as against 3 last year. No irregularities were observed. Under the terms of licenses issued from the Home Office the district Inspectors supervised the exhumation of one body at Scholemoor Cemetery and re-interment at North Bierley Cemetery.

During the year the Woman Sanitary Inspector has made 247 visits to the women's conveniences in the public streets, parks, cemeteries and recreation grounds, for the purpose of making inspection as to the condition of the conveniences set apart for the use of females, with the result that in 16 instances nuisances were found. These were notified verbally to the person in charge and abated.

(E) *Workshop and Shop Inspection, etc.*

### (1) FACTORIES,

I.—INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH.  
INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS.

Premises	Number of		
	Inspections	Written Notices	Occupiers Prosecuted
Factories with mechanical power ...	1507	34	...
Factories without mechanical power	881	3	...
† Other premises under the Act (including works of building and engineering construction but not including outworkers' premises.)	26	1	...
TOTALS ...	2414	38	...
† Electrical Stations should be reckoned as factories.			

## II.—DEFECTS FOUND.

Particulars	Number of Defects			Number of defects in respect of which Prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	
Want of cleanliness ... ..	23	22	...	...
Overcrowding ... ..	...	...	...	...
Unreasonable temperature ... ..	...	...	...	...
Inadequate ventilation ... ..	1	1	...	...
Ineffective drainage of floors ... ..	2	2	...	...
Sanitary accommodation { insufficient ... ..	47	39	...	...
{ unsuitable or defective	382	238	...	...
{ not separate for sexes	2	2	...	...
Other offences ... ..	467	362	...	...
(Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)				
TOTALS ... ..	924	666	...	...

### III.—REGISTERED WORKSHOPS, ETC.

Workshops on the Register (S.131) at the end of the year									Number
Workshops	...	...	...	...	...	...	...	...	1232
„ Bakehouses	...	...	...	...	...	...	...	...	259
Factory Bakehouses	...	...	...	...	...	...	...	...	205
Total									1696

OUTWORKERS' LIST, SECTION 107.

NATURE OF WORK.	Lists received from Employers.						Outwork in Infected premises as to Secs. 109-10 Instances	Prosecu- tions. Failing to send in Lists.
	Sending twice in the year			Sending in once in the year				
	Lists	Outworker		Lists	Outworker			
		Contractors	Work- men		Contractors	Work- men		
Wearing Apparel:— (1) Making, etc. ... (2) Cleansing and Washing ... ..	142	169	167	11	10	17	147	
Furniture and Uphol- stery ... ..		9	8	—	—	—	2	
Curtains and Furniture Hangings ... ..	4	1	5	—	—	—	—	
Household Linens ...	2	3	6	—	—	—	1	
Umbrellas ... ..	2	2	—	—	—	—	1	
Lamp Shades ... ..	2	—	2	—	—	—	2	
Weaving (Burling) ...	38	60	27	13	21	26	56	
Locks, Keys, etc. ...	2	2	—	—	—	—	—	
	196	246	215	24	31	43	209	

## V.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories:—	
Failing to affix Abstract of the Factory and Workshop Acts (S. 133), 1901 ... ..	18
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Act, but not under the Factory and Workshop Act (S. 5), 1901	36
Other Reports to H.M. Inspectors ... ..	34
Underground Bakehouses (S. 101):—	—
Workshop Bakehouses in use at the end of the year ... ..	6
Factory Bakehouses in use at the end of the year ... ..	17
Homework—Secs. 107 to 110:—	
Employers failing to keep list of outworkers (form 44) ... ..	8
Notices served on employers for failing to keep or send in lists ... ..	209
List of outworkers not received ... ..	—
Cases of outwork in infected and unwholesome premises ... ..	—
Outworkers visited ... ..	155
Prosecutions for failing to send in list of outworkers ... ..	—
Limewashing and painting of Bakehouses (S. 99):—	
Occupiers requested to limewash or cleanse walls and ceilings of bakehouses ... ..	140

## (2) SHOPS ACTS, 1912—1934.

*Shops Inspected.* The total number of shops on the Register is 7,349, and the number of visits and investigations made was 4,622. The number of shops visited in which young persons were employed was 432, and in 96 instances the employers had failed to exhibit the notice referring to the specific provisions of the Act. All the employers were cautioned.

In 40 shops no notice specifying the day of the weekly half-holiday were displayed, and the offenders were all cautioned. In 26 instances shops were found open and the occupiers selling non-exempted articles on the weekly half-holiday, and 2 persons were found hawking on the day fixed for the closing of shops. One of these offenders was prosecuted and the remainder cautioned. The occupiers of 107 shops were found not displaying the notices specifying the exempted trades for which they were remaining open after the closing hour on the weekly half-holiday, or at night, and they were all cautioned. In 183 cases employers had failed to provide the prescribed form relating to their assistants' weekly half-holiday. All these offenders were cautioned. In 9 cases shop assistants were found employed after half-past one o'clock on their specified weekly half-holiday; all these offenders were

cautioned. In 19 cases shop assistants were not being allowed correct intervals for meals; all the employers were cautioned.

*Closing Orders.* During night visits and observations after the closing hours affecting certain classes of shops, 3 shops were found open after the prescribed closing hour, and the shop-keepers were cautioned. In 88 shops official copies of Closing Orders, etc., were not displayed. All these offenders were cautioned.

*Shops (Hours of Closing) Act 1928.* As a result of night inspections 4 shop-keepers were found carrying on business after the closing hour. All offenders were cautioned.

*Section 72. P.H.A. 1925.* Offences relating to food storage in shops referred to Food Inspectors, 18.

*Shops (Sunday Trading Restriction) Act, 1936, and Retail Meat Dealers' Shops (Sunday Closing) Act, 1936.* During visits and observations on Sundays 16 shopkeepers were found open contrary to the above Acts, for sales of non-exempted goods. In 87 instances notices were not displayed stating for what purpose the shop was open. Forty-seven shopkeepers were not keeping Form VII. Six assistants had been employed on more than three Sundays in one month. Fifteen assistants were not allowed a compensatory holiday after having been employed on a Sunday. All the offenders concerned were cautioned.

### SHOPS ACT, 1934. Section 10.

Complaints made by Shops Inspectors	...	...	...	...	163
Number of complaints investigated by Special Sanitary Inspector	...	...	...	...	33
Number of visits to shops to arrange and supervise alterations	...	...	...	...	627
Number of shops in respect of which notices were served	...	...	...	...	22
Number of shops where work was carried out after formal notice	...	...	...	...	38
Number of shops where work was carried out without formal notice	...	...	...	...	35

#### *Details of work carried out :—*

Ventilation of shop improved	...	...	...	...	...	1
Water closets provided	...	...	...	...	...	24
Ventilation of W.C.s improved	...	...	...	...	...	—
Lighting of W.C.s improved	...	...	...	...	...	4
Water closets provided with intervening ventilated lobbies	...	...	...	...	...	13
Washing facilities provided	...	...	...	...	...	13
Facilities for taking meals provided	...	...	...	...	...	—
Means of heating provided	...	...	...	...	...	49
Alternative accommodation provided	...	...	...	...	...	7

## OFFENCES.

Nature of Offence	No. of Cases	No. of Warnings	Prosecutions		
			No. of Cases	Fines £ s. d.	Costs £ s. d.
<i>Shops Act, 1912—</i>					
Prescribed form relating to half holiday of assistants not displayed ... ..	183	183			
Correct meal times not allowed to assistants ... ..	19	19			
Half holiday not allowed to assistants ... ..	9	9			
Notice of day of weekly half holiday not fixed ... ..	40	40			
Shop open after closing hour on weekly half holiday ...	26	23	3	15 0	—
Hawking on weekly half holiday after hour fixed by Order	2	2			
Shop open after closing hour fixed by Closing Order ...	3	3			
Official copy of Closing Order not displayed in shop ...	88	88			
Notices not displayed in mixed shops after closing hour ...	107	107			
<i>Shops (Hours of Closing) Act, 1928—</i>					
Shop open after closing hour...	4	4			
<i>Shops (Sunday Trading Restriction) Act, 1936—</i>					
Shop open for non-exempted sales ... ..	16	16			
Notices not displayed stating purpose for which shop open	87	87			
Without Form VII ... ..	47	47			
Assistants employed on more than three Sundays in a month	6	6			
Assistants not allowed a compensatory holiday ... ..	15	15			
<i>Retail Meats Dealers' Shops (Sunday Closing) Act, 1936—</i>					
Shop open on Sunday ...	—	—			
<i>Shop Act, 1934—</i>					
Abstract relating to young persons not displayed. Forms H and J ... ..	120	120			
Young persons employed more than 48 hours per week ...	25	25			
Young persons employed in shop after being employed in factory for permitted hours...	2	2			
Without Schedule of Young persons hours—Form F ...	145	145			
Without overtime record—Form G ... ..	40	40			
Without notice relating to seats—Form K ... ..	107	107			
Young persons employed overtime in excess of yearly limit	—	—			
Overtime worked by young persons in more than 6 weeks	—	—			
Totals ... ..	1,081	1,078	3	15 0	Nil

## ADMINISTRATION OF THE SHOPS ACTS, 1912-1934.

*Summary of Inspections and Offences.*

## INSPECTIONS.

Number of shops on register ... ..	7,349
Number of shops visited where assistants are employed ... ..	432
Number of shops visited where young persons are employed ... ..	197
Total number of inspections ... ..	4,622

**(3) RAG FLOCK ACT, 1911—1928.**

During the year 17 samples of rag flock were submitted to the City Analyst. Three samples did not conform to standard and warning letters were sent to the offenders.

*(F) Premises, Etc., Controlled by Bye-laws or Regulations.***(1) COMMON LODGING HOUSES.**

At the end of the year there were 9 registered common lodging houses in the city, comprising 51 sleeping rooms, and affording nightly accommodation for 621 males, 21 females, and 13 couples.

The total number of persons accommodated during the year was 126,390, as against 147,397 the previous year. The nightly average was 346, representing 53.0 per cent. of the accommodation available. This shows a decrease of 1.6 per cent. on the previous year.

The following table shows the number of nights spent by single men, women, young persons, and couples in common lodging houses during the year :—

ADULTS			8 to 21 years		Under 8 years	
Males	Females	Couples	Males	Females	Males	Females
117962	3398	2436	28	82	26	22

The whole of the houses have been limewashed and cleansed in accordance with the Public Health Act, 1936.

The total number of inspections made during the year was 197. There have been no cases of infectious disease reported during the year in any Common Lodging House. No difficulties have been experienced in gaining admittance and it has not been necessary to resort to Police Court proceedings.

## **(2) CANAL BOATS.**

The number of boats inspected within the City Boundary during the year was 29. The structural condition of these 29 was satisfactory. The defects for which notices were outstanding at the end of the previous year were remedied during the year under review.

## **(3) OFFENSIVE TRADES, Etc.**

The number of offensive trades within the city is 350, of which 310 are fish friers. Two hundred and ninety of the fish friers and one other trade are subject to annual license. The number of visits of inspection made to offensive trades other than fish friers was 320.

## **(4) SCHOOLS.**

The number of visits made for the sanitary inspection of schools was 524, as against 126 last year. Minor defects have been noted and remedied at various schools.

## **(5) INSPECTION OF CINEMAS AND OTHER PLACES OF PUBLIC ENTERTAINMENT.**

The periodical inspection of these places was carried out as usual by the District Sanitary Inspectors, and 270 recorded inspections have been made during the year. Minor defects which were observed were remedied on the attention of the management being called thereto. A number of visits were made during the year in regard to the exclusion of children from cinemas owing to the prevalence of zymotic disease, but no breaches of the law were observed.

### *G. Other Sanitary Work.*

## **SMOKE ABATEMENT.**

During the year the number of observations (each of half-hour duration or longer) made by the Smoke Inspector for the emission of smoke, etc., was 913, and 234 inspections were made of the boiler plants concerned.

Thirty-six chimneys were found to be discharging black smoke for more than a total of three minutes in the half hour, and 5 chimney

were found to be discharging excessive quantities of preventable smoke other than black. In 41 cases the firms concerned were notified immediately following the observations and notices to abate the nuisance were served in each case.

The causes of smoke were carefully investigated in the 41 cases subject to preliminary notices and are summarised as follows :—

Spread firing (sudden cooling) ... ..	17
Inattention to coal feed (machine stokers) ... ..	6
Insufficient draught plant ... ..	6
Defective furnaces ... ..	2
Fireman engaged on other duties ... ..	1
Insufficient boilers at work ... ..	6
Excessive dragging of fires ... ..	3

It will be seen that only in 8 cases was the plant itself at fault, the nuisance in the 33 other cases arising from the manner in which it was used.

In 3 cases, subject to notice, excessive black smoke was again discharged within six months, and proceedings were subsequently instituted under The Public Health (Smoke Abatement) Act, 1926, and 2 cases penalties amounting to 12/- were imposed, the other case was dismissed proved " under the Probation of Offenders' Act, 1907.

In all cases where notices were served every effort is made to arrive at the real cause of smoke and advise the firms concerned of the remedies that might be adopted. Unfortunately the causes of smoke are not always apparent as defaults or careless acts by the boiler-house staff cannot be seen by the Inspector whilst observing the chimney; the majority of boiler-houses are not equipped with measuring or recording instruments.

During the past eight years the Corporation have maintained two deposit gauges and undertaken local observations for the investigations of atmospheric pollution. One gauge is situated in a northern residential district; the other gauge in the centre of the city, being respectively

known as North and Central. The contents of the gauges are examined monthly by the City Analyst and the results computed in tons per square mile.

### ANNUAL DEPOSITS, 1933-1938.

#### TONS PER SQUARE MILE.

	Total Solids	Tar	Carbon	Ash	Chlorine	Ammonia	Lime	Sulphate as SO <sub>3</sub>	Free Acid as H <sub>2</sub> SO <sub>4</sub>
<b>NORTH</b>									
1933 ...	118.34	6.08	49.31	62.72	15.86	2.04	—	—	—
1934 ...	152.87	6.07	78.67	65.82	18.02	1.81	—	—	—
1935 ...	154.98	8.02	67.93	79.03	35.44	1.39	—	—	—
1936 ...	164.71	5.00	70.74	88.78	21.19	2.32	—	—	—
1937 ...	163.62	3.60	79.04	80.97	16.73	0.89	4.50	23.07	6.29
1938 ...	218.10	5.03	92.20	121.47	33.45	0.91	3.49	28.54	9.51
<b>CENTRAL</b>									
1933 ...	375.40	12.04	193.64	168.02	27.96	7.09	—	—	—
1934 ...	381.00	11.13	165.58	206.25	29.40	7.77	—	—	—
1935 ...	333.68	11.16	147.07	175.80	41.76	1.77	—	—	—
1936 ...	309.95	6.87	159.49	177.71	33.09	1.33	—	—	—
1937 ...	265.14	5.31	111.52	229.26	43.34	1.38	12.27	45.45	17.63
1938 ...	253.01	5.55	104.80	142.65	31.71	1.39	4.78	28.74	6.26

### MEAN MONTHLY DEPOSITS FOR 1938.

#### TONS PER SQUARE MILE.

Station	Total Solids	Tar	Carbon	Ash	Chlorine	Ammonia	Lime	Sulphate as SO <sub>3</sub>	Free Acid as H <sub>2</sub> SO <sub>4</sub>
North ...	18.17	0.41	7.68	1.12	2.79	0.07	0.29	2.38	0.79
Central...	21.08	0.46	8.73	11.89	2.64	0.12	0.40	2.40	0.52

Assuming the mean of the two stations to give the average deposit for the city, which has an area of 39.851 square miles, the total deposit for the city amount to the following for the year 1938 :—

Total Solids	Tar	Carbon	Ash	Chlorine	Ammonia	Lime	Sulphate as SO <sub>3</sub>	Free Acid as H <sub>2</sub> SO <sub>4</sub>
9384.91	208.02	3923.73	3250.77	2254.77	45.43	164.98	1142.93	313.23

## III.—FOOD.

## (A) MILK SUPPLY.

There is an average dairy cow population in Bradford of 4,097 animals, housed in 255 dairy farms. The amount of milk produced by these cows is estimated at 8,194 gallons per day, whilst about 9,732 gallons come into the city by train or road; the total amount of milk consumed in the city being about 18,445 gallons daily, representing 50 pint per head of the population for all purposes.

*Contagious Abortion.* No cases of Undulant Fever attributable to the consumption of milk were reported.

*Milk and Dairies Consolidation Act, 1915.*

*Biological Examination of Milk for Tuberculosis.* Six hundred and eighty-seven samples were taken; these samples were unselected and 29 of them were reported positive for B. Tuberculosis.

*The Milk (Special Designations) Order, 1936.* There are 10 herds in the city producing under this order about 1,310 gallons of Tuberculin Tested Milk per day, and the following table shows the movements of animals from these herds during 1938 :—

	Reacted to Tuberculin and removed at the end of segregation period.	Removed from herd as reactors to Tuberculin Reaction.	Removed from herd for other reasons.	Number remaining in herd.
Number of Cows in herd on 1st Jan., 1938 ...	3	14	70	213
Number of Cows in segregation on 1st Jan., 1938	10	5	52	33
Number of Cows admitted to herds 1st Jan., 1938 to 31st Dec., 1938 ...	29	16	42	256
Number of Cows in segregation on 31st Dec., 1938 ... ..	—	—	—	22

Fifty herds produce 2,400 gallons of Accredited Milk per day. Free licences to pasteurise milk were granted to firms in the city, and under these licences about 2,584 gallons of milk is pasteurised daily.

## SUMMARY.

Number of city dairy farms ... ..	255
Average dairy cow population ... ..	4,097
Number of visits to city farms ... ..	82

*Milk and Dairies Order, 1926.* There are 464 cowsheds within the city, and much improvement has been effected within recent years in their structure and equipment, and farmers now realise that the production of a consistently clean milk is, with care and method, comparatively easy. The improvement in cowsheds carried out is shown in the following summary :—

SUMMARY OF DEFECTS REMEDIED.

	1934	1935	1936	1937	1938
Floors ... ..	8	12	8	6	7
Light and ventilation ...	3	3	5	6	4
Drainage ... ..	1	1	5	4	4
Milk-rooms provided ...	17	12	16	14	11
Milk-rooms altered ...	1	6	—	6	4
General repairs ... ..	2	1	2	3	4
Rooms added for sterilization purposes ... ..	12	14	15	16	16
Cowshed roofs repaired ...	3	—	2	3	2
Cowsheds reconstructed ...	19	15	15	9	18

Total number of visits to farms was 381.

There were at the end of the year 352 vendors of milk registered and residing within the city. These may be classified as follows :—

Cowkeepers and retailers ... ..	15
Retailers only (in street or from their homes) ... }	19
Milkshops (including dairies, confectioners, small grocers and other shops) ... .. }	
Shops where milk is sold in sealed bottles only ... ..	82

The number of visits made to these premises was 156, and generally the premises were found to be in a satisfactory state.

In addition to these 352 vendors residing within the city, 65 dairy men came into the city from surrounding districts to sell milk by retail.

The milk supply of the city is further supplemented from 447 sources outside the boundary. From these sources the milk arrives in Bradford in 47 cases by rail and 400 by road.

During the year 5 new milk purveyors were registered, in addition to 10 shopkeepers who were registered to sell milk in sealed bottles only.

Seventy-one persons have been granted a dealer's licence to sell Tuberculin Tested Milk, 50 to sell Accredited Milk, and 3 to sell Pasteurised Milk.

*Chemical Examination of Milk.* Six hundred and forty-seven samples were analysed, and the results are shown in tabulated form on page 34. These show that 4.17% of the samples gave an analysis under 3.0% of fat, and 54.4% over 3.5% of fat; while 3.24% of these samples gave an analysis under 8.5% of non-fatty solids. The total below both 3.0% fat or 8.5% of non-fatty solids was three.

*Bacteriological Examination of Milk.* Reference to the Report of the City Bacteriologist will give the number of the samples examined and other details.

There were 912 samples of milk submitted for bacterial counts. Of these samples 420 were obtained from sources outside the city and 492 from inside. In 412 samples, or 45.18%, B. Coli was absent in 1 c.c.; in 172 samples, or 18.86%, B. Coli was absent in 0.1 c.c.; in 171 samples, or 18.75%, B. Coli was absent in 0.01 c.c.; and in 68 samples, or 7.46%, B. Coli was absent in 0.001 c.c.; and in 89 samples, or 7.7%, B. Coli was present in 0.001 c.c.

*Phosphatase Test of Heat-Treated Milks.* The number of samples taken and submitted to the City Laboratory was 95.

#### MILK DISTRIBUTION—MATERNITY AND CHILD WELFARE.

Forty-one thousand two hundred and sixty-three gallons of certified milk produced on farms within the city were distributed as follows:—

	Gallons
Maternity and Child Welfare ... ..	36,014
Tuberculosis Dispensary ... ..	5,249
	<hr/>
Total	41,263
	<hr/>

#### THE FOOD AND DRUGS ADULTERATION ACT 1928, AND THE PUBLIC HEALTH (PRESERVATIVES ETC. IN FOOD) REGULATIONS.

The number of samples of food and drugs taken under these Acts and submitted to the Public Analyst for analysis by the sampling officer was 1,000. Of these 951 were certified as genuine, and 49 as adulterated or doubtful. In 8 adulteration cases proceedings were taken against the vendors. The total penalties and costs amounted to £34 4s. 6d.

The adulterations in the remaining cases were small, and the vendors were cautioned by letter.

# RESULTS OF MILK ANALYSIS, 1938.

[illegible]

TABLE SHOWING NUMBER OF SAMPLES PROCURED AND EXAMINED  
DURING 1938.

Nature of Sample	Number Sub- mitted	Statutory Sample		Informal Sample	
		Genuine	Adult- erated	Genuine	Adult- erated
Almond Nibs ... ..	2	—	—	2	—
Bacon ... ..	1	—	—	1	—
Baking Powder ... ..	8	—	—	8	—
Banana Cream ... ..	1	—	—	1	—
Be-Vita ... ..	1	—	—	1	—
Bi-carbonate of Soda ... ..	1	—	—	1	—
Boracic Acid ... ..	1	—	—	1	—
Boracic Ointment ... ..	1	—	—	1	—
Bottled Prawns ... ..	1	—	—	1	—
Butter ... ..	39	—	—	39	—
Candied Peel ... ..	1	—	—	1	—
Camphorated Oil... ..	4	—	—	4	—
Castor Oil... ..	2	—	—	2	—
Cheese ... ..	22	—	—	21	1
Cocoa ... ..	4	—	—	4	—
Cod Liver Oil ... ..	1	—	—	1	—
Coffee ... ..	6	—	—	6	—
Coffee and Chicory ... ..	1	—	—	1	—
Coffee and Chicory Extract ... ..	2	—	—	2	—
Condensed Milk ... ..	2	—	—	2	—
Cookeen ... ..	1	—	—	1	—
Cornflour ... ..	2	—	—	2	—
Cream ... ..	3	—	—	3	—
Cream Cheese ... ..	4	—	1	2	1
Cream of Tartar... ..	1	—	—	1	—
Creamed Rice ... ..	1	—	—	1	—
Crystallised Ginger ... ..	1	—	—	1	—
Custard Powder ... ..	5	—	—	5	—
Dairy Cream ... ..	4	2	—	2	—
Dressed Crab ... ..	2	—	—	2	—
Dried Fruit ... ..	1	—	—	1	—
Dripping ... ..	1	—	—	1	—
Egg Noodles ... ..	1	—	—	1	—
Egg Substitute ... ..	1	—	—	1	—
Epsom Salts ... ..	1	—	—	1	—
Essence of Almonds ... ..	1	—	—	1	—
Fish Paste ... ..	4	—	—	4	—
Flour ... ..	2	—	—	2	—
Fruit Juice ... ..	3	—	—	3	—
Glaze Cherries ... ..	1	—	—	1	—
Glycerine ... ..	1	—	—	1	—
Glycerine and Thymol Powder... ..	2	—	—	2	—
Glycerine, Lemon and Honey ... ..	1	—	—	1	—
Ground Almonds ... ..	3	—	—	3	—
Ground Cinnamon ... ..	1	—	—	1	—
Halibut Liver Oil Pastilles ... ..	1	—	—	—	1
Health Salts ... ..	1	—	—	1	—
Honey ... ..	3	—	—	3	—
Ham ... ..	18	—	—	18	—
Totals (carried forward)... ..	172	2	1	166	3

TABLE SHOWING NUMBER OF SAMPLES PROCURED AND EXAMINED  
DURING 1938.

Nature of Sample	Number Sub- mitted	Statutory Sample		Informal Sample	
		Genuine	Adult- erated	Genuine	Adult- erated
Totals (brought forward) ...	172	2	1	166	3
Jelly ... ..	4	—	—	4	—
Lard ... ..	25	—	—	25	—
Lardene ... ..	1	—	—	1	—
Lemon Cheese ... ..	4	—	—	4	—
Lemonade Crystals ... ..	1	—	—	1	—
Lemonade Powder ... ..	1	—	—	1	—
Liquid Paraffin ... ..	1	—	—	1	—
Liquorice Powder ... ..	2	—	—	2	—
Macleans Stomach Powder ... ..	2	—	1	—	1
Malt Vinegar ... ..	1	—	—	1	—
Malted Milk Cocoa with Eggs ... ..	1	—	—	1	—
Margarine... ..	15	—	—	15	—
Marmalade ... ..	4	—	—	4	—
Meat Paste ... ..	4	—	—	4	—
Milk ... ..	626	475	30	115	6
Milk Chocolate ... ..	1	—	—	1	—
Mustard ... ..	2	—	—	2	—
Oatmeal ... ..	2	—	—	2	—
Olive Oil ... ..	5	—	—	5	—
Parish's Chemical Food ... ..	1	—	—	1	—
Pearl Barley ... ..	1	—	—	1	—
Pepper ... ..	3	—	—	3	—
Phosphorus & Quinine Tablets ... ..	1	—	—	1	—
Pickles ... ..	5	—	—	5	—
Polony ... ..	1	—	—	1	—
Potted Meat ... ..	14	2	1	10	1
Potted Shrimps ... ..	1	—	—	1	—
Powdered Gelatine ... ..	1	—	—	1	—
Raspberry Vinegar and Olive Oil ... ..	1	—	—	1	—
Rice ... ..	1	—	—	1	—
Rusks ... ..	2	—	—	2	—
Sago ... ..	1	—	—	1	—
Sal Volatile ... ..	1	—	—	1	—
Sardines ... ..	3	—	—	3	—
Sauce ... ..	3	—	—	3	—
Sausage ... ..	18	1	2	13	2
Self-Raising Flour ... ..	2	—	—	2	—
Seidlitz Powders... ..	2	—	—	2	—
Semolina ... ..	1	—	—	1	—
Shortex ... ..	1	—	—	1	—
Steak and Kidney Pudding ... ..	1	—	—	1	—
Strained Prunes with Lemon Juice ... ..	1	—	—	1	—
Sugar ... ..	8	—	—	8	—
Sulphur and Treacle ... ..	1	—	—	1	—
Sulphur Tablets ... ..	1	—	—	1	—
Syrup of Figs ... ..	1	—	—	1	—
Sweet Spirits of Nitre ... ..	3	1	—	1	1
Totals (carried forward)...	954	481	35	424	14

TABLE SHOWING NUMBER OF SAMPLES PROCURED AND EXAMINED  
DURING 1938.

Nature of Sample	Number Sub- mitted	Statutory Sample		Informal Sample	
		Genuine	Adult- erated	Genuine	Adult- erated
Totals (brought forward) ...	954	481	35	424	14
Table Jelly ... ..	1	—	—	1	—
Tapioca ... ..	2	—	—	2	—
Tartaric Acid ... ..	1	—	—	1	—
Tea ... ..	13	—	—	13	—
Tincture of Iodine ... ..	1	—	—	1	—
Tinned Cream ... ..	5	—	—	5	—
Tinned Fish ... ..	5	—	—	5	—
Tinned Fruit ... ..	2	—	—	2	—
Tinned Milk ... ..	2	—	—	2	—
Tinned Peas ... ..	3	—	—	3	—
Tinned Vegetables ... ..	4	—	—	4	—
Treacle ... ..	1	—	—	1	—
Treacle and Brimstone Tablets...	1	—	—	1	—
Vita Glucose ... ..	1	—	—	1	—
Yeast ... ..	2	—	—	2	—
Zinc Ointment ... ..	2	—	—	2	—
Totals ... ..	1000	481	35	470	14

### (C) SLAUGHTERHOUSES AND MEAT INSPECTION.

The number of private slaughterhouses within the city is 33 and 1 knacker's yard. Eight of these, and also the knacker's yard, are subject to annual licence, and 25 are registered slaughterhouses. The number of visits made to private slaughterhouses was 1,897, and to butchers' shops and potted meat and sausage-makers' premises 2,115. There were no seizures of diseased or unsound meat during the year.

The total number of animals slaughtered in Bradford was as follows :—

				Public Abattoir	Private Slaughterhouses.
Beasts	...	...	...	18,919	6,003
Sheep and Lambs	...	...	...	60,892	20,354
Calves	...	...	...	7,764	190
Pigs	...	...	...	26,700	9,612
				114,275	36,159
Total ...				150,434	

The number of carcasses and offals totally condemned were as follows :—

#### WHOLE CARCASSES AND OFFAL CONDEMNED, 1938.

	Bulls	Cows	Bullocks	Heifers	Calves	Sheep	Pigs
Decomposition (general)	—	—	—	—	11	35	8
Dropsy (general) ...	—	5	—	—	—	24	3
Emaciation (general pathological) ...	1	7	—	—	—	15	3
Erysipelas (acute swine)	—	—	—	—	—	—	23
Fever (acute) ...	—	7	—	2	2	1	4
Immaturity ...	—	—	—	—	6	—	—
Jaundice ...	—	—	—	—	2	1	17
Pyæmia ...	—	1	1	—	24	1	10
Septicæmia ...	—	30	—	1	3	—	—
Tuberculosis ...	1	130	2	9	2	—	44
Miscellaneous ...	—	—	—	—	1	—	—
TOTALS ...	2	170	3	12	51	77	112

The condemnations of partial carcasses and organs are shown in the following table :—

PARTIAL CARCASSES AND ORGANS CONDEMNED, 1938.

		Partial Carcase	Lungs	Heart	Stomach and Intestine	Liver	Kidney	Udder	Head
Abscess	Beasts	—	2	—	5	32	—	—	—
	Sheep	—	—	—	—	—	—	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	—	—	—	—	—	—	—	—
Inflammatory Conditions	Beasts	1	23	16	13	74	14	25	—
	Sheep	—	—	—	—	—	—	—	—
	Calves	—	2	1	—	—	1	—	—
	Pigs	—	33	2	2	34	3	—	—
Parasitic Conditions	Beasts	12	—	—	—	21	—	—	4
	Sheep	—	—	—	—	22	—	—	—
	Calves	—	2	—	—	—	—	—	—
	Pigs	—	2	—	—	9	—	—	—
Tuberculosis	Beasts	4	621	67	135	217	11	42	150
	Sheep	—	—	—	—	—	—	—	—
	Calves	—	1	—	—	—	—	—	—
	Pigs	—	551	551	711	545	—	—	415
Miscellaneous	Beasts	5	—	—	—	—	—	—	—
	Sheep	2	—	—	—	—	—	—	—
	Calves	—	—	—	—	—	—	—	—
	Pigs	3	—	—	—	—	—	—	—

The incidence of tuberculosis in beasts and pigs is shown in the following table :—

	Beasts		Pigs	
	No.	Percentage	No.	Percentage
Generalised Tuberculosis ... ..	130	0·52	44	0·12
Localised Tuberculosis ... ..	621	2·49	711	1·95
Totals ... ..	751	3·01	755	2·07

The total weights of meat in lbs. found to be unsound or unwholesome was as follows :—Beef, 96,228 lbs. ; Mutton, 5,082 lbs. ; Pork, 8,816 lbs. ; Veal, 2,907 lbs. ; Offal, 39,594 lbs. a total of 172,627 lbs., or upwards of 73 tons. In addition to which the following miscellaneous foodstuffs were destroyed :—

Chilled and Frozen Meat, 3,183 lbs.; Sheep Kidneys, 120 lbs.; Livers, 46 lbs.; Suet, 85 lbs.; Veal, 92 lbs.; Chilled Beef, 130 lbs.; Udders, 660 lbs.; Pig Stomachs, 200 lbs.; Tinned Ham, 1,469 lbs.; Tinned Beef, 73 lbs.; Tinned Tongue, 27 lbs.; Tinned Veal, 18 lbs.; Tinned Fish, 170 lbs.; Boiled Mutton, 18 lbs.; Pressed Brisket, 75 lbs.

*The Slaughter of Animals Act, 1933.* Two hundred and twelve licences have been granted to persons to act as slaughtermen. •

The question of applying Sec. 1 of this Act to sheep, ewes, wethers, rams and lambs was reconsidered by the Council, but no resolution was passed.

### (D) OTHER ARTICLES OF FOOD.

Supplies of fish, fruit and vegetables were regularly inspected throughout the year in the St. James' Wholesale Market, the wholesale fish warehouses and retail shops. Eighty-four visits were made to fish curing-yards.

The total weight of the following foods found to be diseased, unsound or unwholesome was 48 tons 9 cwts. 10 lbs., and this was destroyed after surrender to the Inspector.

					Tons.	Cwts.	Qrs.	Lbs.
Cabbages	...	...	...	...	1	5	—	—
Sprouts	...	...	...	...	3	—	—	—
Cauliflowers	...	...	...	...	5	3	3	6
Dry Fish	...	...	...	...	1	2	2	8
Wet Fish	...	...	...	...	—	4	3	—
Shell Fish	...	...	...	...	6	4	3	—
Hard Fruits	...	...	...	...	—	16	1	—
Soft Fruits	...	...	...	...	1	19	3	6
Legumes	...	...	...	...	16	10	3	10
Rabbits	...	...	...	...	2	14	—	3
Tomatoes	...	...	...	...	—	4	3	16
Potatoes	...	...	...	...	—	4	—	—
Onions	...	...	...	...	3	6	—	10
Radishes	...	...	...	...	1	1	2	18

					Tons.	Cwts.	Qrs.	Lbs.
Swedes	...	...	...	...	—	5	3	—
Leeks	...	...	...	...	—	2	2	8
Mushrooms	...	...	...	...	—	3	—	2
Parsnips	...	...	...	...	—	10	—	—
Watercress	...	...	...	...	—	6	2	21
Lettuce	...	...	...	...	2	10	—	2
Rhubarb	...	...	...	...	—	—	—	20
Mustard and Cress	...	...	...	...	—	—	—	10
Spinach	...	...	...	...	—	4	3	10
Carrots	...	...	...	...	—	7	2	—
Total					48	9	—	10

## SHELLFISH.

Fifty-three samples were submitted for bacteriological examination and sources of supply with results are set out in the table below :—

Nature of Sample	Source of Supply					Results		
						Good	Doubtful	Bad
Mussels	...	...	...	...	...	—	—	2
"	...	...	...	...	...	—	—	1
"	...	...	...	...	...	—	1	—
"	...	...	...	...	...	2	—	—
"	...	...	...	...	...	1	—	—
"	...	...	...	...	...	—	1	—
"	...	...	...	...	...	—	—	1
"	...	...	...	...	...	1	2	6
"	...	...	...	...	...	—	1	—
"	...	...	...	...	...	—	1	—
"	...	...	...	...	...	2	1	19
"	...	...	...	...	...	1	—	—
"	...	...	...	...	...	—	—	2
Shrimps	...	...	...	...	...	3	—	—
"	...	...	...	...	...	—	—	1
"	...	...	...	...	...	1	—	—
"	...	...	...	...	...	1	—	—
"	...	...	...	...	...	1	—	1
Totals					...	13	7	33

*Watercress.* The result of the bacteriological examinations of 60 samples submitted are set out in the table below:—

#### WATERCRESS.

	B. Coli.		B. Welchi.	
	Watercress	Lettuce	Watercress	Lettuce
Absent from 1 gm. ... ..	6	—	51	—
Present in 1 gm. and absent from 0.1 gm. ... ..	32	—	9	—
Present in 0.1 gm. and absent from 0.01 gm. ... ..	18	—	—	—
Present in 0.01 gm. and absent from 0.001 gm. ... ..	4	—	—	—

#### ABSTRACT OF THE RESULTS OF THE BACTERIOLOGICAL EXAMINATION OF ICE CREAM.

Coliform Bacilli	Number of Samples	Colonies on Agar at 37° C. per 1 cc.				
		under 50,000	50,000 to 100,000	100,000 to 200,000	200,000 to 400,000	over 400,000
Absent in 1 cc. ... ..	46	34	5	—	1	6
Present in 1 cc. and absent in 0.1 cc. ... ..	25	12	2	4	1	6
Present in 0.1 cc. and absent in 0.01 cc. ... ..	18	6	2	3	—	7
Present in 0.01 cc. and absent in 0.001 cc. ... ..	18	—	3	—	—	16
Present in 0.0001 cc. ... ..	3	—	—	—	—	3
Totals ... ..	111	52	12	7	2	38

*Fish Friers' Premises.* Consent to the establishment of three new fish friers' businesses was granted during the year, making the total of such premises within the city to be 310. Of these 19 are not subject to annual consent.

**(E) BAKEHOUSES, Etc.**

The number of Bakehouses in use at the end of the year was 464, of which 259 were Workshop Bakehouses, 6 of these being underground, and 205 Factory Bakehouses, 17 being underground.

Of the Factory Bakehouses 6 may be termed large wholesale bakers.

The number of inspections made of Bakehouses was 2,103.

*Limewashing and Painting of Bakehouses (Sec. 99).*

Occupiers requested to limewash walls and ceilings ...	81	
Occupiers requested to cleanse walls and ceilings ...	30	
Occupiers requested to paint walls and ceilings ...	29	
	—	140
New sinks provided ... ..	15	
Fume pipes to ovens provided or repaired ... ..	3	
Defective plaster repaired or renewed ... ..	5	
Bakehouse floors repaired or renewed ... ..	21	
Miscellaneous defects ... ..	55	
	—	99

*Restaurant and Café Kitchens.*

No. in use at the end of the year ... ..	152	
No. of inspections made of Restaurants, etc. ...	437	
Limewashing or cleansing of walls and ceilings ...	11	
Painting and papering of walls and ceilings ...	20	
New sinks provided and fixed ... ..	5	
Defective plaster repaired or renewed ... ..	2	
Miscellaneous defects ... ..	26	
	—	64

*Food Stores.*

Inspection of shops used as Food Stores ... ..	111	
Limewashing or papering walls and ceilings ...	15	
Food stores used as sleeping places ... ..	—	
Floors cleansed or repaired ... ..	4	
Shop fittings cleansed ... ..	3	
Miscellaneous defects ... ..	6	
	—	139

*Fertilizers and Feeding Stuffs Act, 1926.*

Feeding Stuffs sampled					Fertilizers sampled				
Wheatings	...	...	...	5	Kamfonite	...	...	...	1
Pig Meal	...	...	...	3	Nitrate of Potash	...	...	...	1
Meat and Bone Meal	...	...	...	1	Super Phosphates	...	...	...	4
Chicken Foods	...	...	...	6	Sulphate of Ammonia	...	...	...	5
Fish Meal	...	...	...	3	Dried Blood	...	...	...	1
Barley Meal	...	...	...	2	Basic Slag	...	...	...	1
Soya Bean Meal...	...	...	...	1	Guano Compound	...	...	...	1
Cattle Foods	...	...	...	4	Nitrate of Soda	...	...	...	1
Broad Bran	...	...	...	1	Potash Salts...	...	...	...	1
Indian Meal	...	...	...	5	Suphate of Potash	...	...	...	2
Flaked Maize	...	...	...	1	Bone Meal	...	...	...	2
Sussex Ground Oats	...	...	...	1	Bone Meal Raw	...	...	...	1
Palm Kernel Meals	...	...	...	1	Steamed Bone flour	...	...	...	1
					General Fertilizer	...	...	...	3
					"Tonk's" Rose Manure	...	...	...	1
					Fish Manure...	...	...	...	1
					Potash Superphosphate	...	...	...	1

The results of the analysis of the above samples showed that the constituents conformed with the particulars as set out in the Statutory Statement and were in accordance with the provisions of the Act.

*Merchandise Marks Act, 1926.* Attention has been given during the year to the requirements of the various Imported Goods Orders made under the above Act and considerable improvement is noticeable in regard to the necessary marking by retailers.

**(F) PHARMACY AND POISONS ACT, 1933.***Poisons Rules, 1935.*

The number of applications for entry on the List of the Local Authority under the above Act was 454. The following table sets out the number of persons entered according to the respective trades. Each of the premises were inspected when applications were received.

No. of Listed Sellers Part 2 of the above Act	Nursery-men	Hardware-Dealers	Herbalists	Hairdressers	Grocers
454	9	33	10	9	393

## IV.—PREVALENCE AND CONTROL OF DISEASE.

## (A) INFECTIOUS DISEASES.

The total deaths in Bradford from enteric fever, smallpox, measles, scarlet fever, whooping cough, diphtheria, and diarrhœa and enteritis under 2 years, known for convenience as Zymotic diseases, in 1938 was 15, giving a mortality rate for this group of 0·26 per 1,000.

## AVERAGE QUINQUENNIAL ZYMOTIC DEATH-RATES FROM 1891.

1891-95 ...	2·3	1911-15 ...	1·2	1931-35 ...	0·31
1896-1900...	2·0	1916-20 ...	0·4	1936 ...	0·43
1901-1905...	1·7	1921-25 ...	0·5	1937 ...	0·34
1906-1910...	1·3	1926-30 ...	0·5	1938 ...	0·26

The Zymotic death-rate for the first quarter was 0·36, for the second 0·21, for the third 0·18, and for the fourth 0·29.

The diseases to be notified in Bradford are smallpox, cholera, plague, diphtheria, membranous croup, erysipelas, scarlet fever, ophthalmia neonatorum, infective enteritis, acute poliomyelitis, cerebro-spinal fever, tuberculosis, acute polio-encephalitis, encephalitis lethargica, pemphigus neonatorum, pneumonia and influenzal pneumonia, malaria, dysentery, and the fevers known by any of the following names, typhus, typhoid, enteric, relapsing, continued or puerperal.

*Diphtheria.* Cases, 631; Deaths, 24; Fatality, per cent., 3·8.

## MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	0·16	0·07	0·04	0·05	0·05	0·15	0·19	0·18	0·17	0·08
England and Wales	0·08	0·09	0·07	0·06	0·06	0·10	0·08	0·07	0·07	0·07

The number of cases of Diphtheria in 1938 was less than that for 1937, and the fatality rate was also lower. The sickness rate per 1,000 was 2·2. The cases were fairly evenly distributed throughout the city, the greatest number occurring in the North Bierley East Ward, where 4 cases were notified, and in the Exchange, Great Horton and Manningham Wards, where 53, 48 and 46 cases occurred respectively.

## CASES OF DIPHTHERIA MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	69	75	78	40	37	53	42	47	49	39	41	61

The greatest incidence of the disease fell on children at five years of age, and the highest death-rate on those at five years.

## CASES AND DEATHS ACCORDING TO AGE.

	Under 1 yr.	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	Over 20	Total
Cases ...	21	24	34	50	44	69	45	51	33	30	113	50	67	631
Deaths .	1	1	1	2	1	6	2	3	2	—	3	1	1	24
Fatality per cent.	4·8	4·2	2·9	4·0	2·3	8·7	4·4	5·9	6·1	0·0	2·7	2·0	1·5	3·8

The number of cases removed to hospital was 563, or 89·2 per cent. of the cases.

Supplies of diphtheria prophylactic, anti-toxin and Schick test outfits for the use of practitioners in the city are supplied by the Health Department.

*Typhoid and Para-Typhoid Fevers.* Cases notified, 4; Deaths, 0. Fatality per cent., 0·0.

## MORTALITY RATES PER 1,000 IN PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	0·01	0·01	0·01	0·00	0·00	0·01	0·00	0·00	0·00	0·00
England and Wales	0·01	0·01	0·01	0·01	0·01	0·00	0·00	0·01	0·00	0·00

The monthly incidence of the disease is shown as follows:—

## CASES OF TYPHOID FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	—	—	1	—	—	1	—	—	—	1	—	1

The sickness rate in Bradford was 0·01 per 1,000 of the population.

The number of cases removed to hospital was 3.

*Scarlet Fever.* Cases, 896; Deaths, 4; Fatality per cent., 0·46.

#### MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	0·05	0·05	0·01	0·02	0·02	0·03	0·02	0·02	0·00	0·01
England and Wales	0·02	0·02	0·01	0·01	0·02	0·02	0·01	0·01	0·01	0·01

The number of cases of Scarlet Fever notified in 1938 was 29 more than in 1937. The sickness rate per 1,000 was 3·1. The greatest number of cases occurred in Little Horton Ward, where 76 cases were notified, and in Eccleshill, East Bowling and North East Wards, where 74, 57 and 57 cases occurred respectively.

#### CASES OF SCARLET FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	107	94	109	65	74	62	57	44	55	58	73	98

The cases and deaths classified according to age are seen in the following Table :—

#### CASES AND DEATHS ACCORDING TO AGE.

	Under 1 year	1-5 years	5-15 years	15-25 years	25-45 years	45-65 years	Over 65 years	Total
Cases ... ..	3	197	503	118	69	5	1	896
Deaths ... ..	—	2	—	1	—	1	—	4
Fatality per cent. ...	—	1·0	—	0·8	—	2·0	—	0·5

The number of cases removed to hospital was 753, or 84·0 per cent. of the cases. The Dick test is employed only to a very small extent in the city.

*Small-pox.* No case of Small-pox occurred in the city in 1938.

The following Table gives the vaccination returns in Bradford since 1916.

### VACCINATION STATISTICS.

Year	1 Births	2 Vaccinated	3 Insus- ceptible	4 Dead	5 Con. Objector	6 Post- poned	7 Removed	8 Un- accounted	Percent- age not Vaccinated including Columns 5, 6 7, 8
1916	4,028	1,337	6	355	1,767	103	278	182	57.7
1917	3,262	1,068	18	287	1,418	66	251	154	57.9
1918	3,221	885	7	288	1,367	92	310	272	63.4
1919	3,310	953	5	258	1,551	93	284	166	63.3
1920	5,208	1,363	9	370	2,609	109	444	304	66.6
1921	4,878	1,230	5	360	2,583	130	263	350	68.2
1922	4,415	1,231	6	277	2,413	91	231	166	65.7
1923	4,447	1,495	14	257	2,182	103	249	147	60.3
1924	4,172	1,336	14	274	1,855	129	376	188	61.1
1925	4,095	1,184	15	265	1,968	101	310	252	64.2
1926	3,892	1,325	32	271	1,727	76	244	108	55.9
1927	3,584	1,228	16	223	1,700	61	231	125	59.1
1928	3,707	1,147	12	208	1,930	32	243	135	63.1
*1929	4,495	1,119	35	233	2,599	67	240	202	69.1
1930	4,479	1,070	8	246	2,676	55	255	169	70.4
1931	4,168	947	19	240	2,510	46	266	140	71.1
1932	4,167	846	15	259	2,601	55	263	128	73.1
1933	4,034	804	6	187	2,581	19	349	88	75.3
1934	4,156	779	4	189	2,689	25	321	149	76.6
1935	4,107	804	5	198	2,714	25	225	136	75.5
1936	4,036	733	4	226	2,695	27	250	101	76.1
1937	4,181	708	3	191	2,775	33	225	246	78.4

\*The figures for that part of Bradford included in the old North Bierley Union are not available for those years prior to 1929.

*Diarrhæa.* Deaths, 25; Mortality per 1,000, 0.09.

## DEATHS IN EACH WARD FROM DIARRHOEAL DISEASES IN 1938.

Ward	Certified as Infective			Not Certified as Infective			Total Deaths from Diarrhoeal Diseases		
	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total
Allerton ...	—	—	—	1	—	1	1	—	1
Bolton ...	—	—	—	1	—	1	1	—	1
Bradford Moor	—	—	—	—	—	—	—	—	—
Clayton ...	—	—	—	—	—	—	—	—	—
East Bowling	1	—	1	1	—	1	2	—	2
Eccleshill ...	1	—	1	—	—	—	1	—	1
Exchange ...	—	—	—	1	—	1	1	—	1
Great Horton	—	—	—	1	—	1	1	—	1
Heaton ...	—	—	—	1	—	1	1	—	1
Idle ...	—	—	—	—	1	1	—	1	1
Listerhills ...	1	—	1	—	—	—	1	—	1
Little Horton	2	—	2	2	—	2	4	—	4
Manningham	2	—	2	—	—	—	2	—	2
North East ...	—	—	—	2	—	2	2	—	2
North Bierley East...	—	—	—	1	—	1	1	—	1
North Bierley West ...	—	—	—	1	2	3	1	2	3
South ...	1	—	1	2	—	2	3	—	3
Thornton ...	—	—	—	—	—	—	—	—	—
Tong ...	—	—	—	—	—	—	—	—	—
West Bowling	—	—	—	—	—	—	—	—	—
City ...	8	—	8	14	3	17	22	3	25

Twenty-one, or 84.0 per cent. of the total deaths, occurred under one year of age.

#### DEATHS AT VARIOUS AGE PERIODS.

Age Periods...	Months			Total under One Year	Years						
	0-3	3-6	6-12	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65 and over
Deaths ...	9	8	4	21	1	—	—	1	1	1	25

#### DEATHS OCCURRING MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Number of Deaths ...	2	1	2	1	1	2	1	3	2	1	6	3	25

The number of notifications of cases of zymotic enteritis received in 1938 was 22.

*Puerperal Pyrexia.* Cases, 57; Deaths, 2; Fatality per cent., 3.5.

#### RECORD OF PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Cases ...	103	75	99	67	61	46	45	61	62	57
Deaths ...	7	15	8	9	8	6	7	6	4	2
Fatality per cent.	6.8	20.0	8.1	13.4	13.1	13.0	15.6	9.8	6.5	3.5
Number of live births to each death ...	621	291	510	447	488	669	566	650	1002	1950

*Measles and German Measles.* Cases notified, 4,855; Deaths, 14; Mortality per 1,000, 0.05.

*Whooping Cough.* Cases notified, 1,713; Deaths, 11; Mortality per 1,000, 0.04.

*Erysipelas.* Cases, 168; Deaths, 3; Fatality per cent., 1.8.

## RECORD OF PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Cases ... ..	179	157	141	130	171	177	147	176	144	168
Deaths ... ..	17	8	10	8	10	17	9	9	5	3
Fatality per cent.	9.5	5.1	7.1	6.2	5.8	9.6	6.1	5.1	3.5	1.8

*Influenza.* Deaths, 25; Mortality rate per 1,000, 0.09.

## RECORD OF PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Deaths ... ..	268	34	124	106	181	26	57	56	129	25

*Anthrax.* Cases, 2; Deaths, 0; Fatality per cent., 0.0.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Cases ... ..	—	3	1	1	4	2	1	2	3	2
Deaths ... ..	—	1	—	—	1	1	1	—	—	—
Fatality per cent.	—	33.3	0.0	0.0	25.0	50.0	100.0	0.0	0.0	0.0

**(B) TUBERCULOSIS.**

The number of deaths from all forms of tuberculosis in 1938 was 184, giving a mortality rate of 0.64 per 1,000.

**RECORD OF PREVIOUS YEARS.**

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Deaths ... ..	292	265	281	277	261	237	204	192	224	184

**MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.**

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	1.01	0.89	0.93	0.93	0.88	0.81	0.70	0.66	0.77	0.64
England & Wales	0.96	0.90	0.90	0.84	0.82	0.76	0.72	0.69	0.70	

During the past thirty years there has been a very great reduction in the death-rate from all forms of tuberculosis; this is well seen in the following Table, which shows the average mortality rate per 1,000 for the five-yearly periods 1911-1915 being 123 per cent. above that of last year.

**AVERAGE MORTALITY RATE PER 1,000 FROM TUBERCULOSIS IN  
BRADFORD FOR PERIODS OF FIVE YEARS FROM 1906.**

Periods	1911-1915	1916-1920	1921-1925	1926-1930	1931-1935	1936	1937	1938
Pulmonary ... ..	1.19	1.16	0.84	0.81	0.72	0.52	0.65	0.53
Other Forms ... ..	0.34	0.30	0.21	0.17	0.13	0.14	0.12	0.11
All Forms ... ..	1.53	1.46	1.05	0.98	0.85	0.66	0.77	0.64

*Public Health Act, 1936, Section 172.* No action was taken under this section during the year.

## NEW CASES AND MORTALITY DURING 1938.

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0 to 1 ... ..	—	—	—	1	—	—	—	—
1 to 5 ... ..	1	—	5	9	—	—	3	4
5 to 10 ... ..	1	2	10	7	—	—	1	—
10 to 15 ... ..	4	4	6	10	1	—	3	—
15 to 20 ... ..	10	13	3	5	3	10	1	—
20 to 25 ... ..	12	10	2	3	5	3	1	2
25 to 35 ... ..	21	23	2	1	10	17	1	1
35 to 45 ... ..	20	17	4	4	16	12	2	3
45 to 55 ... ..	24	7	3	2	23	7	2	1
55 to 65 ... ..	19	3	5	1	32	6	3	—
65 and upwards	3	—	—	1	7	2	1	1
Totals ... ..	115	79	40	44	97	57	18	12

Of the deaths occurring from all forms of tuberculosis in 1938 21 per cent. were not notified.

(A) Pulmonary Tuberculosis. Deaths, 154; Mortality rate per 1,000, 0.53.

## RECORD OF PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Deaths ... ..	243	226	237	223	222	202	185	150	190	154

## MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	0.84	0.76	0.79	0.75	0.75	0.69	0.63	0.52	0.65	0.53
England & Wales	0.79	0.74	0.74	0.69	0.69	0.63	0.60	0.58	0.58	—

Considering the deaths in relation to sex the death-rate from pulmonary tuberculosis was in 1938 among males 0·73 per 1,000, and among females 0·36 per 1,000. The chart on page 56 shows the male and female death-rates from pulmonary tuberculosis for the past twenty-five years in Bradford and shows that the difference in the rates in the two sexes is maintained. The very low rate among females as compared with that among males is rather difficult to account for.

Of the deaths occurring in 1938, 19 per cent. were not notified. The notifications received numbered 211, of which 194 were notified for the first time. This is a decrease in primary notifications over the previous year.

(B) *Other Forms of Tuberculosis*. Deaths, 30; Mortality rate per 1,000, 0·11.

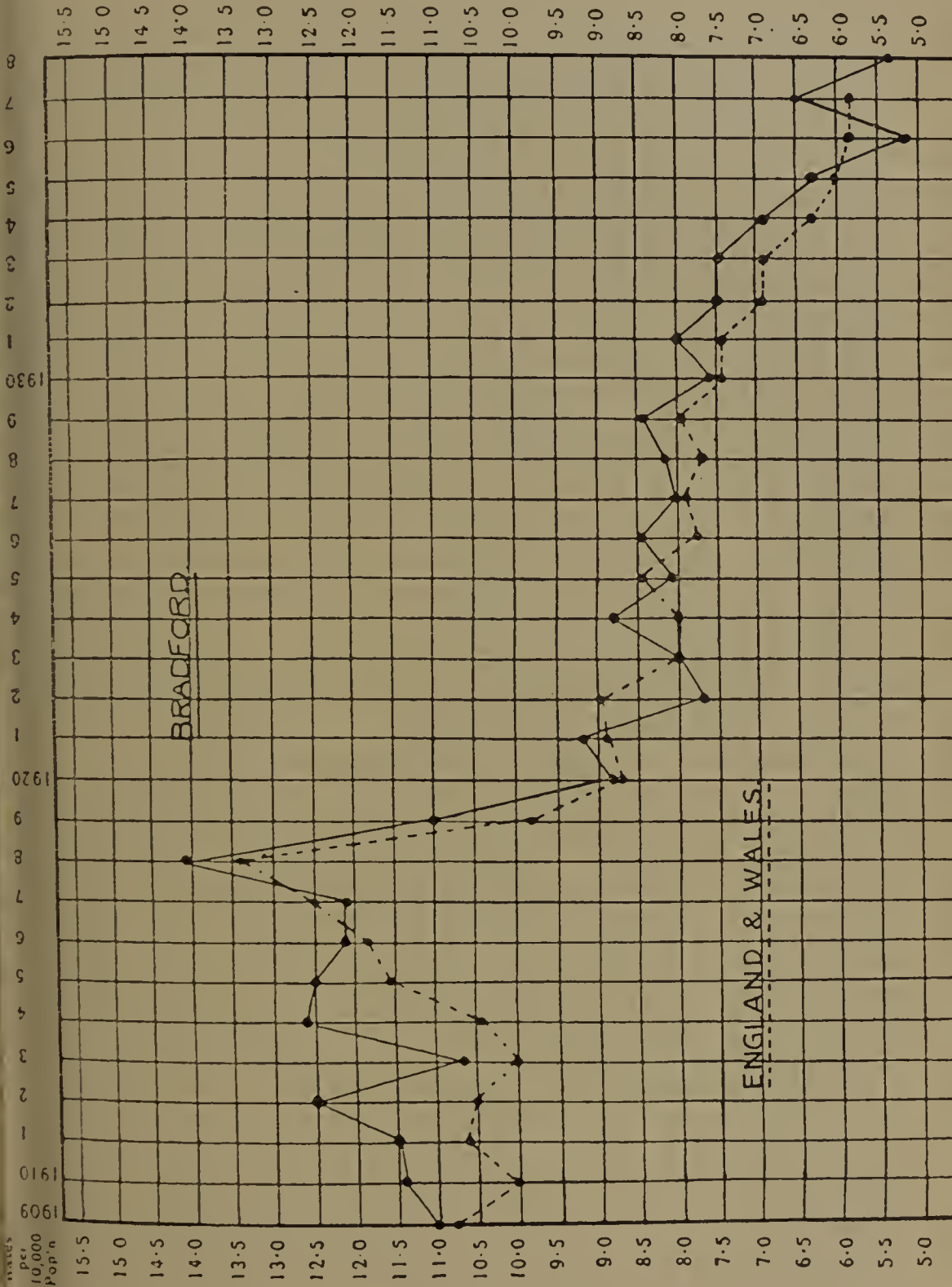
#### RECORD OF PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Deaths ... ..	49	39	44	54	39	35	19	42	34	30

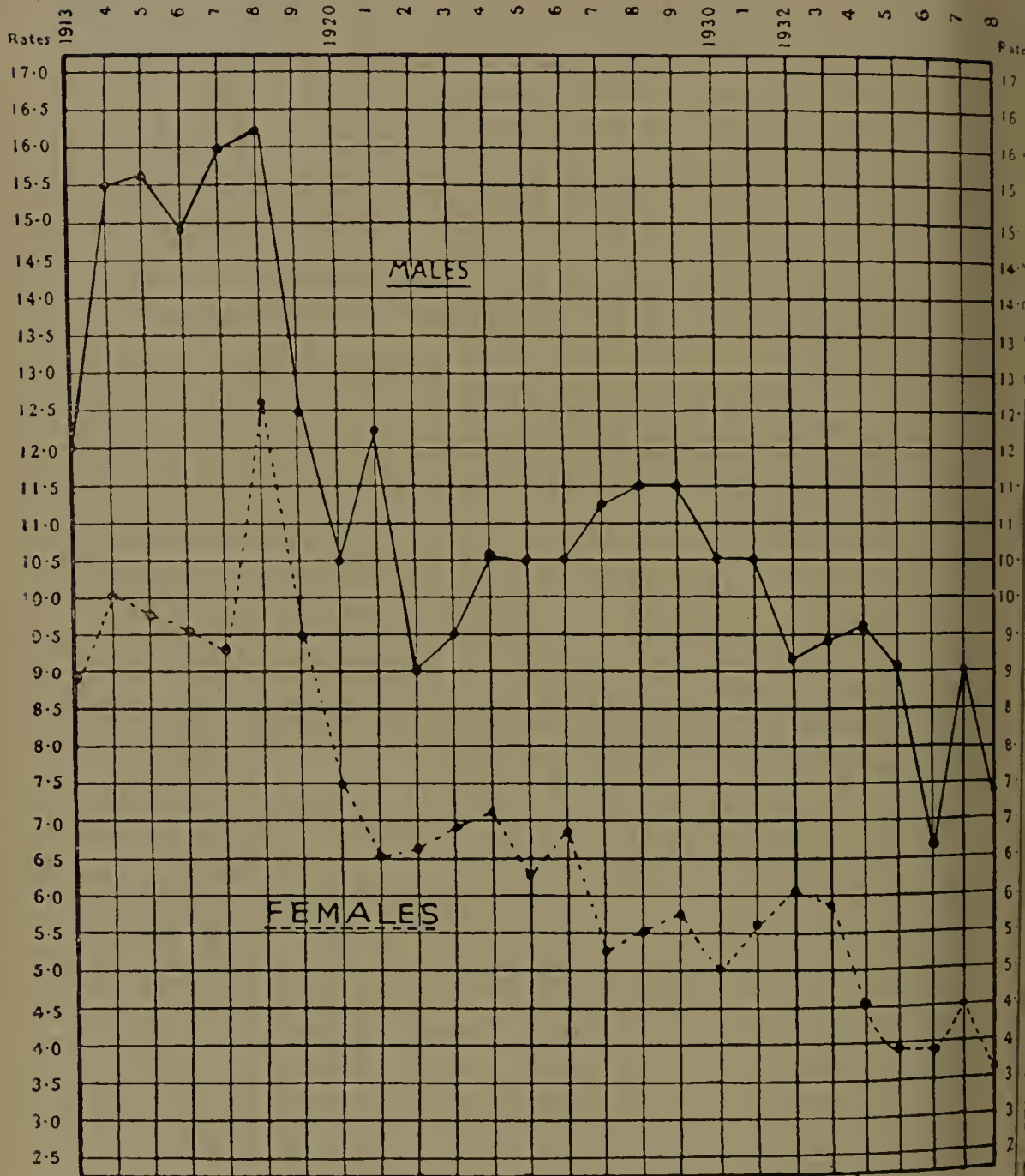
#### MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	0·17	0·13	0·14	0·18	0·13	0·12	0·07	0·14	0·12	0·11
England & Wales	0·17	0·16	0·15	0·15	0·13	0·13	0·11	0·11	0·11	—

During the past thirty years there has been a marked fall in the death-rate from non-pulmonary tuberculosis, the rate for last year being only 32 per cent. of that of the average for the years 1911-1915. The fall may be associated with several causes, all of which have, no doubt, had an effect in bringing about this result. These may be shortly stated as follows:—(a) The improvement in the nutrition in infancy and childhood; (b) the increased purity of the milk supply and its greater freedom from tuberculous infection; and (c) the lessened incidence of pulmonary tuberculosis amongst women referred to above. The number of cases notified during the year of other forms of tuberculosis was 84. This is a decrease of 16 notifications over that of the previous year.



DEATH-RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE  
POPULATION IN BRADFORD ACCORDING TO SEX.



## ANTI-TUBERCULOSIS CENTRE.

Report by H. VALLOW, M.D., D.P.H., Tuberculosis Officer.

The Anti-Tuberculosis Centre, or Tuberculosis Dispensary, is open for general consultations six sessions per week, one being an evening session and one a session set apart specially for children.

The number of attendances at the Anti-Tuberculosis Centre during the year was 3,406; of these 396 were new cases and 237 contacts.

The diagnosis arrived at in these cases is seen in the following tables:—

				Adults		Children		Total	
				Male	Female	Male	Female	Male	Female
NEW CASES:—									
(a) Definitely Tuberculous...	...			59	56	15	15	74	71
(b) Diagnosis not completed	...			14	11	2	4	16	15
(c) Non-Tuberculous	...			88	63	36	33	124	96
Total	...	...		161	130	53	52	214	182
				Adults		Children		Total	
				Male	Female	Male	Female	Male	Female
CONTACTS:—									
(a) Definitely Tuberculous...	...			3	16	2	3	5	19
(b) Diagnosis not completed	...			1	4	1	1	2	5
(c) Non-Tuberculous	...			53	54	51	48	104	102
Total	...	...		57	74	54	52	111	126

The number of cases transferred from other areas and cases returned after discharge in previous years was 23; and the number transferred to other areas, cases not desiring further assistance, and cases "lost sight of," was 70.

The number of cases written off the Dispensary Register as Recovered, diagnosis not confirmed, or non-tuberculous is given in the following table:—

				Adults		Children		Total	
				Male	Female	Male	Female	Male	Female
(a) Recovered:—									
Pulmonary Cases...	...			6	6	2	1	8	7
Non-Pulmonary Cases	...			2	3	7	6	9	9
(b) Diagnosis not confirmed or non-tuberculous									
...	...			146	122	93	84	239	206
Total	...	...		154	131	102	91	256	222

The number of persons on the Dispensary Register on December 31st, 1938, is shown in the following table :—

	Pulmonary				Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
(a) Definitely tuberculous	385	384	112	80	28	44	133	115	413	428	245	195
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	16	16	3	5

The health visitors have paid 3,416 visits to the homes, for Dispensary purposes.

2,234 specimens of sputum have been examined, and 455 X-ray examinations made, in connection with Dispensary work.

The number of persons on the Dispensary Register on January 1st, was 1,317, and on December 31st, 1,321, of which 701 were " T.B. plus " cases.

#### *Residential Treatment.*

Patients have been sent to the Sanatoria and Hospital as required and the following return shows the extent of this residential treatment. Institutions :—Grassington Sanatorium, Bierley Hall Hospital, and St. Luke's Hospital (Tuberculosis Section.)

		In Institutions on Jan. 1st	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31st
Number of doubtfully tuberculous cases admitted for observation	Adult Males	8	32	20	1	9
	Adult Females	5	36	26	—	15
	Children	13	39	32	—	20
	Total ...	26	107	88	1	44
Number of patients suffering from pulmonary tuberculosis	Adult Males	69	154	118	49	56
	Adult Females	38	107	75	27	43
	Children	16	9	15	—	10
	Total ...	123	270	208	76	109
Number of patients suffering from non-pulmonary tuberculosis	Adult Males	6	17	18	1	4
	Adult Females	5	8	9	1	3
	Children	10	16	15	4	7
	Total ...	21	41	42	6	14
Grand Total ...		170	418	338	83	167

The following Table shows the results of observation of doubtfully tuberculous cases discharged from Residential Institutions during the year 1938 :—

Diagnosis on discharge from observation	For Pulmonary Tuberculosis						For Non-Pulmonary Tuberculosis						Totals		
	Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous ...	—	—	1	10	5	6	—	1	—	1	—	2	11	5	9
Non-tuberculous ...	—	3	1	7	7	9	—	—	—	—	—	—	7	10	10
Doubtful ...	2	5	—	10	5	11	—	—	—	1	—	2	13	11	13
Totals ...	2	8	2	27	17	26	—	1	—	2	—	4	31	26	32

The following table shows the immediate results of treatment of definitely tuberculous patients discharged from Residential Institutions during the year 1938 :—

Institution	Condition at time of discharge	Duration of Residential Treatment in the Institution															Grand Totals
		Under 3 months but exceeding 28 days			3-6 months			6-12 months			More than 12 months			Totals			
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
T.B. Minor	Quiescent ... ..	—	1	—	3	4	1	1	2	1	1	3	6	5	10	8	23
	Not Quiescent ... ..	2	—	—	1	—	—	—	—	—	—	—	—	3	—	—	3
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
T.B. plus Group 1	Quiescent ... ..	2	—	—	1	—	—	1	1	1	—	—	1	4	1	2	7
	Not Quiescent ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
T.B. plus Group 2	Quiescent ... ..	2	—	—	3	1	1	6	2	—	—	5	—	11	8	1	20
	Not Quiescent ... ..	4	4	2	5	—	—	2	2	—	—	—	—	11	6	2	19
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
T.B. plus Group 3	Quiescent ... ..	1	3	—	8	2	1	3	2	—	1	2	—	18	9	1	28
	Not Quiescent ... ..	23	13	—	14	8	—	11	1	—	7	5	—	55	27	—	82
	Died in Institution	14	11	—	10	1	—	1	4	—	4	—	—	29	16	—	45
ALS	PULMONARY)	48	32	2	45	16	3	30	14	2	13	15	7	136	77	14	227
all joints	Quiescent ... ..	—	—	—	—	—	1	—	—	—	3	—	1	3	—	2	5
	Not Quiescent ... ..	5	1	1	2	1	1	—	1	2	—	1	1	7	4	5	16
	Died in Institution	—	—	—	—	1	1	1	—	—	—	—	—	1	1	1	3
mal	Quiescent ... ..	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1
	Not Quiescent ... ..	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—	2
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Organs	Quiescent ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Not Quiescent ... ..	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	1
	Died in Institution	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
Glands	Quiescent ... ..	—	—	2	—	—	1	—	—	2	—	—	—	—	—	5	5
	Not Quiescent ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ALS	(NON-PULMONARY)	7	2	4	2	2	4	1	1	4	3	2	2	13	7	14	34

## GRASSINGTON SANATORIUM.

R. S. DONALDSON, M.D., D.P.H., MEDICAL SUPERINTENDENT.

The Institution as a whole provides accommodation for 152 patients, 52 beds for men, 52 for women and 48 for children. The beds are intended for those cases of pulmonary and non-pulmonary forms of tuberculosis in which there is reasonable prospect of arrest or considerable improvement.

## ADMISSIONS AND DISCHARGES, 1938.

	Adults		Children		Total	
	M.	F.	M.	F.	M.	F.
Remaining 31/12/37 ... ..	40	28	17	15	57	43
Admitted ... ..	86	62	25	22	111	84
Discharged ... ..	82	50	24	24	106	74
Died ... ..	2	1	—	—	2	1
Remaining 31/12/38 ... ..	42	39	18	13	60	52

Of the adult cases discharged, 5 men and 10 women stayed under one month. The remainder were classified as follows:—Amongst the adult males 59 had pulmonary tuberculosis, 3 had other forms of tubercle and 17 were either doubtfully tuberculous or had other diseases; amongst the adult females, 29 had pulmonary tuberculosis, while 1 had other forms of tubercle and 11 were either doubtfully tuberculous or had other diseases. Amongst the children 6 boys and 8 girls had intrathoracic tubercle.

*Pulmonary Tuberculosis.**Adults.*

			Male.	Female.
Average stay in days	...	...	368	366
Average age	...	...	33	27

## VARIATION IN WEIGHT.

Weight	Stage I		Stage II		Stage III	
	M.	F.	M.	F.	M.	F.
Gained ... ..	10	9	18	8	20	5
Lost ... ..	1	—	1	—	2	1
Not Weighed ... ..	—	—	1	3	4	1

## DEMONSTRATION OF T.B. IN SPUTUM.

On Admission		On Discharge	
T.B.—	T.B.+	T.B.—	T.B.+
28	75	69	35

## CAPACITY FOR WORK.

	T.B. +		T.B. —		Total	
	M.	F.	M.	F.	M.	F.
Full Work ... ..	6	2	2	2	8	7
Light Work ... ..	23	8	5	4	28	12
Fit for Exercise ... ..	4	—	—	—	4	—
Unfit for Work ... ..	15	9	3	1	18	10

*Other Forms of Tubercle.**Adults.*

			Male.	Female.
Average stay in days ... ..	...	...	1212	385
Average age ... ..	...	...	19	20

*Non-Tuberculous and Doubtful.**Adults.*

			Male.	Female.
Average stage in days ... ..	...	...	143	103
Average age ... ..	...	...	22	25

Table showing the results of observation of doubtfully tuberculous cases discharged during the year. (Stay of under one month not noted.)

Diagnosis on discharge from observation	For Pulmonary Tuberculosis			For Non-Pulmonary Tuberculosis			Totals		
	M.	F.	C.	M.	F.	C.	M.	F.	C.
Tuberculous ...	8	4	6	1	—	2	9	4	8
Non-tuberculous ...	5	7	9	—	—	—	5	7	9
Doubtful ...	9	4	11	1	—	2	10	4	13
Totals ...	22	15	26	2	—	4	24	15	30

*Children.*

			Boys.	Girls.
Average stay in days	...	...	280	429
Average age	...	...	8	8
Average gain in weight	...	...	13 lbs.	11 lbs.

The results of treatment of the children are shown in the following table :—

Result of Treatment of Children	Quiescent		Improved		No Material Improvement		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
(1) Intrathoracic Tubercle ...	5	7	1	1	—	—	6	8
(2) Other Forms of Tubercle ...	2	5	—	1	—	—	2	6
(3) Observation Cases	10	8	3	1	1	—	14	9
Totals... ..	17	20	4	3	1	—	22	23

All the children who were fit were recommended on discharge to go to the Open Air School.

The table showing results of treatment in adults is given on the following page, and from this table it is clear that the majority of the A. sub-classes and I.B and II.B are likely to improve with sanatorium treatment. Of the cases in III.B, about 50 per cent. of them will benefit, but very few cases in any of the C. sub-classes are likely to improve. It is of the greatest importance that patients should be sent for treatment as early as possible.

TABLE SHOWING RESULTS OF TREATMENT.

## ADULTS.

Stage	T.B. + Cases.						T.B. - Cases.						Total					
	Improved			Little Improved or Worse			Died			Total			Quiescent			Improved		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	M.	F.	M.
I A.	4	—	2	1	—	6	1	2	5	2	3	—	—	—	4	8	5	4
II A.	8	2	5	2	—	13	5	1	—	2	1	—	—	—	3	1	9	7
III A.	2	—	7	2	—	9	2	1	—	—	1	—	—	—	1	1	3	3
I B.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II B.	—	—	4	5	—	4	5	—	—	—	—	1	—	—	1	—	4	5
III B.	—	—	7	2	—	9	2	—	—	1	—	—	—	—	1	8	2	10
I C.	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	1	—	1
II C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
III C.	—	—	1	3	1	7	4	—	—	—	—	—	—	—	—	1	3	1
Total	14	2	27	12	7	4	1	1	49	19	1	—	4	5	5	10	18	7
																32	17	8
																1	1	1
																59	29	29

NOTE ON CLASSIFICATION.—Pulmonary Tuberculosis cases in Adults are sub-divided into two classes:—(1) Tubercle Bacilli present in the sputum; (2) Tubercle Bacilli absent. Each of these classes is further sub-divided according to the extent of the lesion in the lung and the severity of the symptoms. For the extent of the lesion a modified Turban-Gerhardt system is used, Stage 1 being a localised lesion involving if both lungs, not more than the extent of the lung above the clavicle in front, and above the spine of the scapula behind; whilst if only one lung is affected, a lesion extending not lower than the second rib in front and the spine of the scapula behind is indicated. Stage 2 indicates a slight lesion up to one lobe, or a severe lesion of half a lobe. Stage 3 includes all other cases. The letters A, B and C are used to denote severity of symptoms in each case. A denotes constitutional disturbance absent or slight; B, intermediate between A and C; C, severe constitutional disturbance or deterioration. Constitutional disturbance is in each case estimated by degree of pyrexia, tachycardia, dyspnoea, malnutrition.

## X-RAY DEPARTMENT.

During the past year the total number of radiographs taken was 466 as compared with 248 last year. This increase is principally due to an effort made during the latter months of the year under review to X-ray each case on admission and at three to four monthly intervals, dependent on the clinical findings from time to time, with a final radiograph just prior to discharge. 145 screen examinations were also made.

It is almost unnecessary nowadays to emphasise the utility of X-rays as a means of helping diagnosis, of demonstrating the extent of the lesion and of controlling treatment, the latter being particularly necessary in treatment by artificial pneumothorax. Unfortunately, the present apparatus has many defects. Accurate exposures are impossible, making it difficult to obtain a comparable series of plates, the apparatus is not shock-proof and the lack of protection from the rays is dangerous to the operator, particularly when screening, an essential procedure in pneumothorax work.

## LABORATORY.

*Sputum.* The sputum of patients is examined about every four weeks during treatment. In all 2,591 specimens were examined last year either by the direct method or after concentration. 266 cases were found positive on direct smear. In 94 cases tubercle bacilli were demonstrated in the sputum after concentration when results had been negative with the direct method. 823 specimens of sputum were cultured and the tubercle bacillus was recovered from 45 of these.

*Blood Work.* One thousand and eighty-six blood sedimentation tests were performed and numerous blood counts and films made.

*Urine.* One thousand and ninety-one urine specimens were examined the high number being chiefly due to the necessity for repeated examinations of the urine during chrysotherapy.

## DENTAL TREATMENT.

The Dental Surgeon visits the Sanatorium on an average once a month and undertakes any necessary treatment. During the year 205 teeth were extracted, 42 filled, 10 scaled, 5 dentures made and various minor operations carried out.

## TREATMENT.

*Routine.* By far the most important element in treatment is the regular Sanatorium regime, consisting of graduations from complete rest in bed to various fixed times for recreation, work and exercise, accompanied by a wholesome dietary and plenty of fresh air. Various adjuncts to the general treatment are at times necessary, and several of these have been utilised. Among them are the following:—

*Artificial Pneumothorax.* During the year artificial pneumothorax treatment was carried out on 10 patients and the total number of refills given was 132. Several other cases were attempted but were unsuccessful because of the presence of adhesions. More successful collapse therapy will be possible when arrangements have been made to cut adhesions and carry out various other minor operations on the chest.

*Chrysotherapy.* During the year under review 35 cases were treated with various gold preparations, including Chrysalbine, Sanocrysin and Solgenol B. Oleosum.

*Ultra-Violet Ray.* Twenty-four children were given ultra-violet light therapy. A portable U.V. light lamp is desirable for the treatment of bed-ridden surgical cases as the transport of such cases to the general sunlight room often does more harm than good.

*Complications and Associated Conditions Treated.* Cystitis 1, Fistula-in-ano 3, Lupus Vulgaris 2, Haemoptysis 14, Bronchitis 6, Pleurisy 8, Diabetes 1, Laryngitis 11, Diarrhoea 1, Abdominal Tuberculosis 2, Hyperpiesia 4, Cervical Adenitis 10, Anaemia 2, Haemorrhoids

2, Endocarditis 4, Spontaneous Pneumothorax 2, Pleurisy with effusion 2, Hypoglycaemia 1, Appendicitis 2.

Much still requires to be done to modernise the existing Sanatorium buildings and to make certain much-needed additions for both patients and staff. Reading rooms, the installation of bedside wireless, and recreative facilities, especially for the children and the staff, are amongst the most urgent needs, such as may be found in any of our City Parks to-day.

#### BIERLEY HALL HOSPITAL.

	Men	Women	Total
Admissions ... ..	36	40	76
Pulmonary Cases ... ..	32	34	66
Non-Pulmonary Cases ... ..	—	—	—
Observation Cases ... ..	4	6	10
Discharges ... ..	34	26	60
Deaths ... ..	17	9	26
Number of Patient days ... ..	7,780	5,124	12,904
Average number of beds occupied ... ..	17·6	14·4	32·0

The total number of admissions shows a slight decrease on that of the previous year.

The average stay in hospital was for men 139 days and for women 200 days.

Of the 60 persons discharged during the year 2 men were non-tuberculous and one man and 5 women were doubtfully tuberculous.

The following table shows the result on discharge of the 52 definitely tuberculous cases :—

	Males	Females
Much improved ... ..	5	6
Improved ... ..	9	9
Stationary ... ..	13	5
Worse ... ..	4	1

The majority of the cases admitted to the institution are of the advanced type and progress is very slow. Two men made sufficiently good progress to enable them to be transferred to the City Sanatorium at Grassington. Such transfers always create an atmosphere of hope in the institution.

### (C). VENEREAL DISEASES.

The Centre at the Municipal General Hospital is well equipped, and conveniently situated so as to serve the whole area. In the Municipal General Hospital itself beds are provided for indoor treatment of venereal disease in its various forms, and the provision made is adequate.

The number of new cases from the area of the City of Bradford and the attendances at the Venereal Diseases Centre since its opening are shown in the following table :—

Year			Venereal Diseases		Non-Venereal Diseases		Attendances	
			Males	Females	Males	Females	Males	Females
1918	...	...	200	175	34	41	1,604	1,639
1919	...	...	583	235	79	42	10,990	4,011
1920	...	...	627	311	121	31	21,129	9,174
1921	...	...	457	184	144	29	28,676	11,390
1922	...	...	403	164	126	31	23,162	7,863
1923	...	...	359	134	110	44	21,398	7,565
1924	...	...	315	123	103	50	17,390	5,615
1925	...	...	248	142	143	42	13,294	4,859
1926	...	...	374	119	43	29	20,095	4,957
1927	...	...	312	115	99	53	20,116	5,369
1928	...	...	344	122	141	83	20,972	5,253
1929	...	...	308	145	156	116	17,955	4,654
1930	...	...	311	145	165	110	19,215	6,230
1931	...	...	236	97	127	73	16,738	4,333
1932	...	...	336	111	146	68	16,720	4,243
1933	...	...	390	315	35	22	21,991	4,921
1934	...	...	379	93	188	78	19,811	5,471
1935	...	...	360	129	156	55	17,817	5,672
1936	...	...	277	131	140	63	15,714	5,237
1937	...	...	302	99	119	67	16,358	5,829
1938	...	...	377	129	197	88	15,622	5,869

	Males	Females
1. Number of persons dealt with at the Out-patient Clinic for the first time and found to be:—		
Suffering from Syphilis ... ..	81	68
Suffering from Soft Chancre ... ..	3	—
Suffering from Gonorrhœa ... ..	267	46
Not suffering from Venereal Disease ... ..	197	88
Total ... ..	548	202
2. Number of persons discharged from the Out-patient Clinic after completion of treatment for:—		
Syphilis ... ..	39	13
Soft Chancre ... ..	3	—
Gonorrhœa ... ..	221	43
Total ... ..	263	56
3. Number of persons who ceased to attend the Out-patient Clinic without completing treatment and who were suffering from:—		
Syphilis ... ..	44	29
Soft Chancre ... ..	—	—
Gonorrhœa ... ..	103	—
Total ... ..	147	29
4. Total attendances of all persons at the Out-patient Clinic who were:—		
Suffering from Syphilis ... ..	3,312	3,568
Suffering from Soft Chancre ... ..	48	—
Suffering from Gonorrhœa ... ..	11,663	2,010
Not found to be suffering from Venereal Disease ... ..	629	291
Total ... ..	15,622	5,869
5. Aggregate number of "In-patient days" of treatment given to persons suffering from:—		
Syphilis ... ..	66	45
Soft Chancre ... ..	—	—
Gonorrhœa ... ..	255	308
Not suffering from Venereal Disease ... ..	—	—
Total ... ..	321	353
6. Number of persons treated with Salvarsan Substitutes ... ..	348	356

## 7. Number of doses of Salvarsan Substitutes given:—

Dose	Novarseno- billon	Silber Salvarsan	Biarsamide (5 c.c.)	Sulphostab	Neo- Salvarsan
·05 grm.	22	—	—	—	—
·06 „	—	—	—	—	—
·10 „	27	2	—	19	—
·12 „	—	—	—	—	—
·15 „	142	13	—	—	—
·18 „	—	—	—	—	—
·20 „	—	15	—	8	—
·24 „	—	—	—	—	—
·30 „	505	2	—	10	248
·36 „	—	—	—	—	—
·42 „	—	—	—	—	—
·45 „	891	—	—	29	139
·48 „	—	—	—	—	—
·60 „	629	—	—	11	—
Total ...	2,211	32	150	77	387

## Authorities responsible for patients:—

Area	New Cases	Number of Attendances at Out-patient Clinic	Aggregate number of In-patient Days	No. of doses of Salvarsan Substitutes used in Treatment Centre
Bradford ...	629	18,087	536	2,313
West Riding ...	106	3,032	201	233
Total ...	735	21,119	737	2,546

## Number of out-patients remaining under treatment:—

				Bradford.	West Riding Area.
Male	...	...	...	328	36
Female	...	...	...	301	18
				—	—
Total				629	54
				—	—

## Number of persons receiving in-patient treatment:—

Male	...	...	...	13	1
Female	...	...	...	13	7
				—	—
Total				26	8
				—	—

Pathological Examinations made in the Laboratory during the twelve months ending on the 31st December, 1938 :—

Nature of Test	For Treatment Centre	For Private Practitioners	For Hospitals and other Institutions
	No. of Tests	No. of Tests	No. of Tests
For detection of Spirochaetes	35	3	—
For detection of Gonococci	1308	358	642
For Wassermann reaction...	793	317	4427
Kahn Tests ... ..	782	277	3850
Other examinations ...	—	1	44
Totals ... ..	2918	956	8963

The number of doses of salvarsan supplied free to medical practitioners in Bradford by the Local Authority during 1938 was 118.

The following tables showing figures for the past four years seem to show that the prevalence of venereal disease is somewhat diminishing

#### NUMBERS.

	1935	1936	1937	1938
Ophthalmia neonatorum cases notified ...	13	23	28	21
Congenital syphilis deaths registered ...	2	1	4	—
Still Birth cases registered ... ..	183	195	186	196

#### PROPORTIONS PER 1,000 BIRTHS.

	1935	1936	1937	1938
Ophthalmia neonatorum cases notified ...	3.3	5.9	7.0	5.4
Congenital syphilis deaths registered ...	0.51	0.26	1.00	—
Still Birth cases registered ... ..	44.2	47.6	44.4	50.3
Illegitimate Births registered ... ..	55.3	56.4	50.7	56.4

**(D) OTHER DISEASES.**

*Malignant Diseases.* Deaths, 523; Mortality rate per 1,000, 1·81.

**RECORD OF PREVIOUS YEARS.**

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Deaths ... ..	445	480	486	485	504	466	544	526	540	523

**MORTALITY RATES PER 1,000 FROM MALIGNANT DISEASES SINCE 1929.**

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	1·54	1·61	1·58	1·64	1·71	1·59	1·86	1·81	1·87	1·81
England and Wales	1·44	1·45	1·48	1·51	1·53	1·56	1·59	1·62	1·63	—

A slight decrease in the number of deaths took place last year both among males and females.

**MALIGNANT DISEASE IN BRADFORD ACCORDING TO SEX AND SITE.****CRUDE ANNUAL DEATH RATES PER 1,000**

Situation of Disease	1937			1938		
	Males	Females	Persons	Males	Females	Persons
Buccal Cavity and Pharynx	0·18	0·04	0·11	0·14	0·01	0·07
Digestive organs and Peritoneum ... ..	1·06	0·85	0·94	1·14	0·84	0·98
Respiratory organs .. ..	0·21	0·06	0·13	0·24	0·05	0·14
Uterus ... ..	—	0·25	0·14	—	0·33	0·18
Other female genital organs	—	0·14	0·08	—	0·10	0·05
Breast ... ..	—	0·44	0·24	—	0·39	0·21
Male genito-urinary organs	0·23	—	0·10	0·20	—	0·09
Skin ... ..	0·02	0·03	0·02	—	0·03	0·01
Other or unspecified organs	0·12	0·10	0·11	0·03	0·13	0·08
Total ... ..	1·81	1·91	1·87	1·75	1·86	1·81

The table on page 74 gives the number of deaths at different age periods in Bradford according to the situation of the disease, and sex. This table shows that a very large majority of deaths from malignant disease now arise from affections of one or other of four sites—œsophagus and stomach, 128; rectum and colon, 109; Uterus, 51, and breast, 61. It is, therefore, seen that by far the greatest number of deaths in the city from cancer occur from malignant disease affecting some part of the alimentary tract.

The table on page 73 gives the deaths for 1938 according to occupation, while the following table shows the deaths among occupied male during the past five years, 1934-1938 :—

### CANCER AND OCCUPATION.

#### DEATHS, 1934-1938—OCCUPIED MALES.

Occupation	Approximate number employed	Buccal Cavity and Pharynx	Digestive Organs and Peritoneum	Respiratory Organs	Genito-urinary Organs	Others	Total
Combing ... ..	3,500	6	38	12	6	16	78
Dyeing ... ..	4,500	11	43	7	3	6	70
Other Textiles ...	15,000	15	78	20	24	48	185
Engineering ...	10,000	17	52	31	9	42	151
Transport Workers	9,500	9	68	15	9	15	116
Building Trades ...	8,000	20	35	7	8	29	99
Commercial Workers ...	10,000	18	78	21	17	47	181
Clerical Workers...	4,500	4	20	11	10	14	59
Other occupations	30,000	26	103	25	18	53	225

This table seems to show an increased incidence among combers and dyers, but this conclusion can only be accepted with reservation, as the numbers are small and no correction is made for age differences. The higher incidence is not seen in any particular location of the disease.

In 1938 there were 149 deaths from malignant disease in the Municipal General Hospital, St. Luke's; 50 in the Bradford Royal Infirmary, 12 in the Duke of York Home, and 7 in other institutions in Bradford. Although only 42% of the cases died in hospital, the proportion of cases of malignant disease which in the course of their illness are treated in hospital is very large.

MALES					FEMALES							
Occupation	Buccal Cavity and Pharynx	Digestive Organs and Peritoneum	Respiratory Organs	Genito-urinary Organs	Others	Occupation	Genital Organs		Breast		Digestive Organs and Peritoneum	Others
							Mar- ried	Un- marri'd	Mar- ried	Un- marri'd		
Woolcombing	...	1	12	3	—	1	—	1	—	—	—	—
Dyeing	...	1	10	1	1	...	—	—	—	—	4	2
Other Textiles	...	2	27	3	3	...	—	—	—	2	3	—
Engineering	...	5	20	6	4	...	—	1	—	4	2	—
Transport Workers...	...	1	10	1	1	...	—	—	—	1	—	—
Building Trades	...	2	16	3	3	...	—	1	—	1	1	—
Commercial...	...	4	14	3	7	...	59	4	49	4	121	31
Clerical	...	1	10	2	4	...	—	—	—	—	—	—
Other Occupations...	...	2	32	10	3	...	—	—	—	—	—	—
Total	...	19	151	32	26	Total	59	7	49	12	131	33

# CANCER MORTALITY RATE PER 1,000 OF POPULATION.

	1932	1933	1934	1935	1936	1937	1938
ENGLAND AND WALES	...	1.51	1.53	1.56	1.53	1.63	1.63
BRADFORD	...	1.57	1.71	1.85	1.81	1.87	1.86

## DEATHS FROM MALIGNANT DISEASE FOR 1938, BY AGE, SEX, AND SITE.

SITE	MALES								FEMALES								TOTALS ONLY 1932-1937 BY SITE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
	Under 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	Over 75	Under 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	Over 75	1932	1933	1934	1935	1936	1937																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	10	8	61	51	73	6	7	5	18	35	5	15	20	23	20	23	20	20	23	32	6	5	5	36	21	23	20	20	23	32	6	5	5	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5	3	3	4	5

*Cancer Investigation in Bradford.*—In Bradford for some years an attempt has been made to investigate the histories of cases of malignant disease in the city, and records are accumulating as to the incidence, prognosis and effects of treatment which throw some light on the position. The work has been done in close co-operation with the medical profession in practice, to whose active interest and sympathy its success is almost entirely due.

Malignant disease, including suspected malignant disease, is voluntarily notifiable, and practitioners are urged to notify all cases coming under their care. In addition also the cases admitted to the hospitals and some nursing homes are reported, so that a considerable proportion of cases come under notice.

The following table shows the notifications received each year from general practitioners since 1928 and for comparison the number of deaths each year is set out in the table.

Year	Notifications			Deaths Total
	Male	Female	Total	
1928 ... ..	95	58	153	440
1929 ... ..	70	117	187	445
1930 ... ..	105	123	228	480
1931 ... ..	101	157	258	486
1932 ... ..	96	144	240	485
1933 ... ..	113	152	265	504
1934 ... ..	100	157	257	466
1935 ... ..	95	138	233	544
1936 ... ..	102	156	258	526
1937 ... ..	99	141	240	540
1938 ... ..	114	167	281	523
Totals ... ..	1090	1510	2600	5439

The number of fatal cases of malignant disease in Bradford in the year 1938, of which no record was made prior to death, was 101, or 1% of the deaths of that year.

Since 1929 a careful investigation has been made of the histories of cases of malignant disease treated in Bradford Hospitals, and the records are shown in the following tables.

## COMPARATIVE TABLE 1932 to 1938.

SHOWING CASES OF MALIGNANT AND SUSPECTED MALIGNANT DISEASE, TREATED IN HOSPITALS OR NURSING HOMES BY SURGERY OR RADIOTHERAPY OR BOTH; OR NURSED IN HOSPITALS, NURSING HOMES OR AT HOME, AND NOT TREATED BY SURGERY OR RADIOTHERAPY.

		1938	1937	1936	1935	1934	1933	1932
	New Cases notified by Practitioners ... ..	281	240	258	233	257	265	274
1	Registered Cancer Deaths	523	540	526	544	466	504	514
2	Total cases admitted to Hospitals or Nursing Homes during the year	536 M. F. 236 300	495 M. F. 225 270	521 M. F. 216 305	325 M. F. 140 185	327 M. F. 130 197	326 M. F. 126 200	326 M. F. 132 194
3	Curative Treatment Attempted							
	Group A. } See Footnote	41 130	40 107	47 153	26 84	25 87	25 94	25 74
	Group B. }	31 36	26 27	35 26	19 22	30 12	19 20	20 17
4	Palliative Surgery or Radiotherapy Treatment	55 35	44 36	42 42	31 25	23 33	28 32	30 50
5	Cases nursed in Hospitals, Nursing Homes, or at Home, not treated by Surgery or Radiotherapy:—							
	(a) Hospital or Nursing Home Cases ...	109 99	115 100	92 84	64 54	52 65	54 54	50 57
	(b) Home Cases (not included in total of Section side-headed "2") ...	27 39	29 50	32 38	27 38	59 79	76 94	41 54
	Total notified and investigated Cases of known or suspected Malignant Disease ...	263 339	254 320	248 343	167 223	189 276	202 294	172 240
		602	574	591	390	465	496	506

EXPLANATORY NOTE.—Group "A" of Section 3 includes cases of Breast, Uterus, Mouth, Lip, Tongue and Skin Cancer; Group "B" of Section 3 includes cases of Cancer of Larynx, Pharynx, Bladder, Prostate, Vulva, Penis, Ovary, Stomach, Bowel, Bone and certain other sites.



*Respiratory Diseases.* Deaths, 288; Mortality rate per 1,000, 1.00.

DEATHS FROM BRONCHITIS AND PNEUMONIA IN PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bronchitis ...	523	142	190	141	168	110	135	171	160	100
Pneumonia ...	417	266	282	234	249	201	241	291	240	167

AGE INCIDENCE OF DEATHS.

Age Periods	1 year	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Bronchitis	3	—	1	1	—	7	34	54
Pneumonia	35	7	5	7	5	18	50	40

*Rheumatic Fever and Organic Heart Disease.* Deaths, 1,27; Mortality rate per 1,000, 4.41.

The deaths from rheumatic fever numbered 4 and from organic heart disease 1,269.

The ages at death of the total number of fatal cases of rheumatic fever during the past ten years has been as follows:—

AGE INCIDENCE OF DEATHS FROM RHEUMATIC FEVER, 1929-1938.

	Under 5 years	5-15	15-25	25-45	45-65	Over 65 years
Deaths ...	1	21	29	42	30	17

Deaths from organic heart disease in 1938 occurred in 621 cases amongst males, and in 648 cases amongst females. This gives a death rate of 4.69 per 1,000 amongst males, and 4.14 per 1,000 amongst females.

DEATHS FROM ORGANIC HEART DISEASE, 1938, ACCORDING TO SEX AND AGE.

Sex	Under 5 yrs.	5-15	15-25	25-45	45-65	Over 65 yrs.	Total
Males ...	—	1	1	20	200	399	621
Females ...	1	4	4	20	130	489	648
Total ...	1	5	5	40	330	888	1,269

*Cerebro-Spinal Fever.* There were thirteen cases notified, and six deaths, in 1938, as against 21 cases with 7 deaths in the previous year.

*Encephalitis-Lethargica.* There were two cases notified, and four deaths, as against four cases, with seven deaths, in the previous year.

*Acute Polioencephalitis.* There were no cases notified during the year, and no deaths.

*Deaths from Violence.* Deaths, 194; Mortality rate per 1,000, 0.67.

#### RECORD OF PREVIOUS YEARS.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Deaths ... ..	167	188	179	168	189	185	198	186	173	194
Mortality rate per 1,000 ... ..	0.58	0.63	0.59	0.57	0.64	0.63	0.68	0.64	0.60	0.67

## V.—MATERNITY AND CHILD WELFARE.

## (A) INFANT MORTALITY IN 1938.

The infantile mortality rate for the year was 58 per 1,000 births. This rate is 11 per 1,000 births less than the rate for 1937, and is the lowest on record.

## CORRECTED INFANTILE MORTALITY RATES FROM 1929.

Year	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Bradford ... ..	79	75	71	75	79	62	64	82	69	58
England and Wales	74	60	66	65	64	59	57	59	58	53

*Age Distribution of Infantile Mortality.* The infantile mortality rate in the first four weeks of life may be taken as an indication of the operation of antenatal and neonatal causes in bringing about infant deaths. This rate from 1911 is seen in the following table, where it will be noticed that the infantile mortality during these early weeks of life has, on the whole, shown a fall during the past twenty years. There is, however, little change in the rate in the first week of life.

INFANTILE MORTALITY RATE PER 1,000 BIRTHS IN THE FIRST FOUR WEEKS OF LIFE, FROM 1911.

Year	Bradford					England and Wales
	Week				Total for four Weeks	Total for four Weeks
	1	2	3	4		
1911	33.7	7.3	5.6	4.7	51	40
1912	29.4	5.1	5.7	3.2	43	38
1913	32.1	6.5	6.2	3.1	48	39
1914	27.3	5.9	7.2	3.8	44	39
1915	28.2	6.5	5.3	3.9	44	38
1916	31.1	8.1	4.7	4.7	49	37
1917	31.2	7.4	2.6	3.0	44	37
1918	28.1	6.2	3.6	3.6	42	36
1919	34.0	5.9	4.2	2.7	47	40
1920	27.8	8.9	5.8	3.6	46	35
1921	29.9	6.8	4.9	2.8	45	35
1922	22.2	6.5	5.0	3.8	37	34
1923	22.9	5.3	4.0	4.2	36	32
1924	27.3	4.8	5.0	2.4	40	33
1925	23.8	4.1	4.8	3.1	36	32
1926	24.0	6.2	5.5	3.2	39	32
1927	25.0	5.8	3.0	2.5	36	32
1928	26.2	4.3	2.5	0.9	34	31
1929	24.4	3.7	3.9	3.2	35	33
1930	26.7	5.3	3.9	1.6	37	31
1931	26.5	5.6	2.9	2.2	37	32
1932	31.6	5.2	2.0	2.2	41	32
1933	21.3	3.8	4.9	2.1	32	36
1934	31.4	2.2	1.2	1.7	36	31
1935	28.8	3.3	0.8	2.5	35	30
1936	29.7	5.4	4.1	2.3	41	30
1937	25.7	3.5	3.5	2.0	35	30
1938	26.4	2.8	3.1	2.1	34	—

For the remainder of the first year of life, the Infantile Mortality Rate per 1,000 births is given in the following table, which now shows a very low rate of infantile mortality after the first month.

INFANTILE MORTALITY RATE PER 1,000 BIRTHS AFTER THE FIRST  
MONTH OF LIFE, FROM 1911.

Year	1 to 3 months		3 to 6 months		6 to 12 months	
	Bradford	England and Wales	Bradford	England and Wales	Bradford	England and Wales
1911	26	25	28	26	35	39
1912	19	18	14	15	22	24
1913	21	20	27	20	31	29
1914	22	19	20	19	35	28
1915	19	19	21	19	34	34
1916	24	17	19	15	24	22
1917	23	17	24	16	31	26
1918	23	17	23	16	35	28
1919	18	15	20	13	28	21
1920	20	16	17	13	17	17
1921	23	15	18	14	22	19
1922	15	13	13	11	21	19
1923	13	11	13	10	15	16
1924	18	12	14	11	20	19
1925	16	13	17	11	26	19
1926	15	12	15	10	22	16
1927	15	11	15	10	25	17
1928	15	11	10	9	11	14
1929	12	12	10	11	23	10
1930	13	10	9	8	15	12
1931	11	11	10	9	12	15
1932	12	11	7	9	15	13
1933	14	11	15	10	18	14
1934	7	9	9	8	10	11
1935	10	9	7	8	11	10
1936	14	9	10	8	16	11
1937	12	9	11	8	12	10
1938	8	—	7	—	9	—

*Illegitimacy and Infantile Mortality.* Since 1929 the number and the percentage of illegitimate births are shown in the following table:—

ILLEGITIMACY IN BRADFORD FROM 1929.

Year	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Number ... ..	220	259	245	230	210	231	219	220	214	220
Percentage of total births ... ..	4.8	5.6	5.7	5.4	5.1	5.4	5.2	5.3	5.1	5.3

The following table shows the corrected Infantile Mortality Rates amongst these two classes of infants for the past ten years :—

CORRECTED INFANTILE MORTALITY RATES AMONG ILLEGITIMATE AND  
LEGITIMATE INFANTS.

Year	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Illegitimate ...	128	116	122	113	138	67	64	118	107	64
Legitimate ...	77	72	68	73	76	61	64	80	67	58

*Place Distribution of Infantile Mortality.* The Ward which showed the highest infantile mortality was Little Horton, where the rate was 91 per 1,000 births, while the South, Bradford Moor, Exchange, Listerhills and North-East Wards showed a rate above 70 per 1,000. The rate was lowest in Clayton, North Bierley East, and West Bowling Wards, where it was below 40 per 1,000. The record of infantile mortality for the past 10 years in the different wards of the city is shown in the table on page 83.

*Causes of Death in Infantile Mortality.* The table on page 84 shows the deaths from stated causes under one year for the past ten years, and the following table shows the rate from certain of the most serious causes.

INFANTILE MORTALITY PER 1,000 BIRTHS FROM DEVELOPMENTAL AND  
WASTING DISEASES IN BRADFORD SINCE 1929.

Cause of Death	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Premature Birth...	18.2	20.0	19.8	24.6	16.1	21.7	21.0	19.7	17.7	20.5
Atrophy, Debility, and Marasmus ...	7.4	8.5	4.2	4.5	11.0	3.9	2.8	3.3	3.2	0.5
Congenital Mal- formations ...	5.5	5.5	5.9	6.7	6.4	6.0	6.8	10.5	7.0	4.4
Atelectasis ...	0.5	3.4	4.4	1.5	2.1	2.2	3.5	2.1	3.5	0.5

INFANT MORTALITY RATE PER 1,000 BIRTHS, IN WARDS, FOR THE  
YEARS 1929 TO 1938.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Allerton ... ..	53	73	68	61	82	51	41	71	52	69
Bolton ... ..	60	67	45	47	91	45	24	78	74	49
Bradford Moor ... ..	70	57	57	62	85	65	27	64	87	78
Clayton ... ..	39	81	62	58	28	56	28	35	23	35
East Bowling ... ..	98	77	99	101	87	118	117	108	74	68
Eccleshill ... ..	41	85	75	76	47	70	65	110	29	48
Exchange ... ..	182	68	86	93	107	—	323	219	107	73
Great Horton ... ..	62	34	59	57	50	37	42	120	57	66
Heaton ... ..	72	54	38	77	74	69	31	54	81	57
Idle ... ..	92	86	64	96	47	25	66	57	97	42
Listerhills ... ..	105	95	70	62	71	41	89	106	107	73
Little Horton ... ..	101	60	53	56	87	94	56	47	50	91
Manningham ... ..	39	73	48	66	95	58	50	87	57	62
North East ... ..	106	96	86	73	112	76	92	99	97	71
North Bierley (East) ... ..	69	77	94	83	77	39	59	69	30	39
North Bierley (West) ... ..	62	71	88	97	71	45	49	53	33	46
South ... ..	108	108	118	144	110	74	132	98	118	83
Thornton ... ..	34	44	25	48	51	27	75	75	27	49
Tong ... ..	59	65	64	37	96	58	55	65	84	51
West Bowling ... ..	73	101	73	72	77	84	72	89	86	38
City ... ..	80	75	71	75	79	62	64	82	69	58

INFANT MORTALITY: NETT DEATHS FROM STATED CAUSES UNDER 1 YEAR OF AGE FROM 1929.

Causes of Death.	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Chicken-pox ... ..	1	—	—	—	—	—	—	—	—	—
Measles ... ..	8	2	2	4	6	3	3	3	1	5
Scarlet Fever ... ..	—	1	—	—	—	—	—	—	—	—
Whooping Cough ... ..	9	24	3	8	5	4	6	7	8	8
Diphtheria and Croup ... ..	3	2	1	1	1	1	4	1	1	1
Erysipelas ... ..	1	1	1	—	3	3	1	1	1	—
Tuberculous Meningitis ... ..	2	1	2	5	4	1	—	3	1	—
Abdominal Tuberculosis ... ..	1	—	—	—	1	1	—	—	—	—
Other Tuberculous Diseases ... ..	2	—	3	1	1	—	1	—	—	—
Meningitis (not tuberculous) ... ..	6	3	5	6	5	1	2	5	3	4
Convulsions ... ..	22	21	20	15	11	21	13	17	17	14
Laryngitis ... ..	2	—	—	—	—	1	—	—	—	—
Bronchitis ... ..	17	9	12	6	10	3	5	8	6	3
Pneumonia (all forms) ... ..	62	30	48	39	56	31	39	53	45	35
Diarrhœa and Enteritis ... ..	20	23	22	25	32	16	19	36	30	21
Gastritis ... ..	—	3	—	—	3	1	1	—	1	—
Syphilis ... ..	6	2	1	1	1	—	2	1	4	—
Rickets ... ..	1	—	1	1	—	—	—	—	—	—
Suffocation (overlying) ... ..	6	4	4	3	1	3	1	—	1	—
Injury at Birth ... ..	4	9	1	6	4	9	5	8	5	18
Atelectasis ... ..	2	15	18	6	8	9	14	8	14	2
Congenital Malformations ... ..	24	24	24	27	25	24	27	41	28	17
Premature Birth ... ..	79	87	81	99	63	87	83	77	71	80
Atrophy, Debility and Marasmus ... ..	32	37	17	18	43	16	11	13	13	2
Other Causes ... ..	36	29	26	28	27	14	16	39	28	18
Total ... ..	346	327	292	302	310	249	253	321	278	228

## INFANTILE MORTALITY IN CERTAIN GREAT TOWNS FROM 1929.

Deaths per 1,000 Births.

Town.	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Birmingham	...	62	70	68	66	67	64	62	60	61
Bradford	...	75	71	75	79	62	64	82	69	58
Bristol ...	...	59	53	53	55	46	43	48	46	42
Halifax ...	...	62	75	81	86	77	69	68	63	57
Huddersfield	...	56	59	52	48	58	44	63	61	66
Hull ...	...	71	83	68	77	64	72	65	77	69
Leeds ...	...	66	76	88	81	71	64	65	67	64
Leicester	...	55	64	70	75	53	59	58	63	46
Liverpool	...	81	93	91	89	80	83	75	82	73
London ...	...	59	64	67	60	67	58	66	60	57
Manchester	...	78	82	86	75	69	71	77	76	69
Newcastle	...	71	92	76	76	84	86	90	82	66
Nottingham	...	76	82	80	85	69	80	89	55	71
Portsmouth	...	57	55	60	51	44	46	49	44	60
Salford ...	...	75	88	97	80	92	78	90	84	74
Sheffield ...	...	66	69	73	63	55	52	59	55	50
Stoke-on-Trent	...	71	98	87	89	85	83	74	81	52
West Ham	...	65	67	72	70	66	45	70	62	57

## INFANT MORTALITY, 1912-1938.

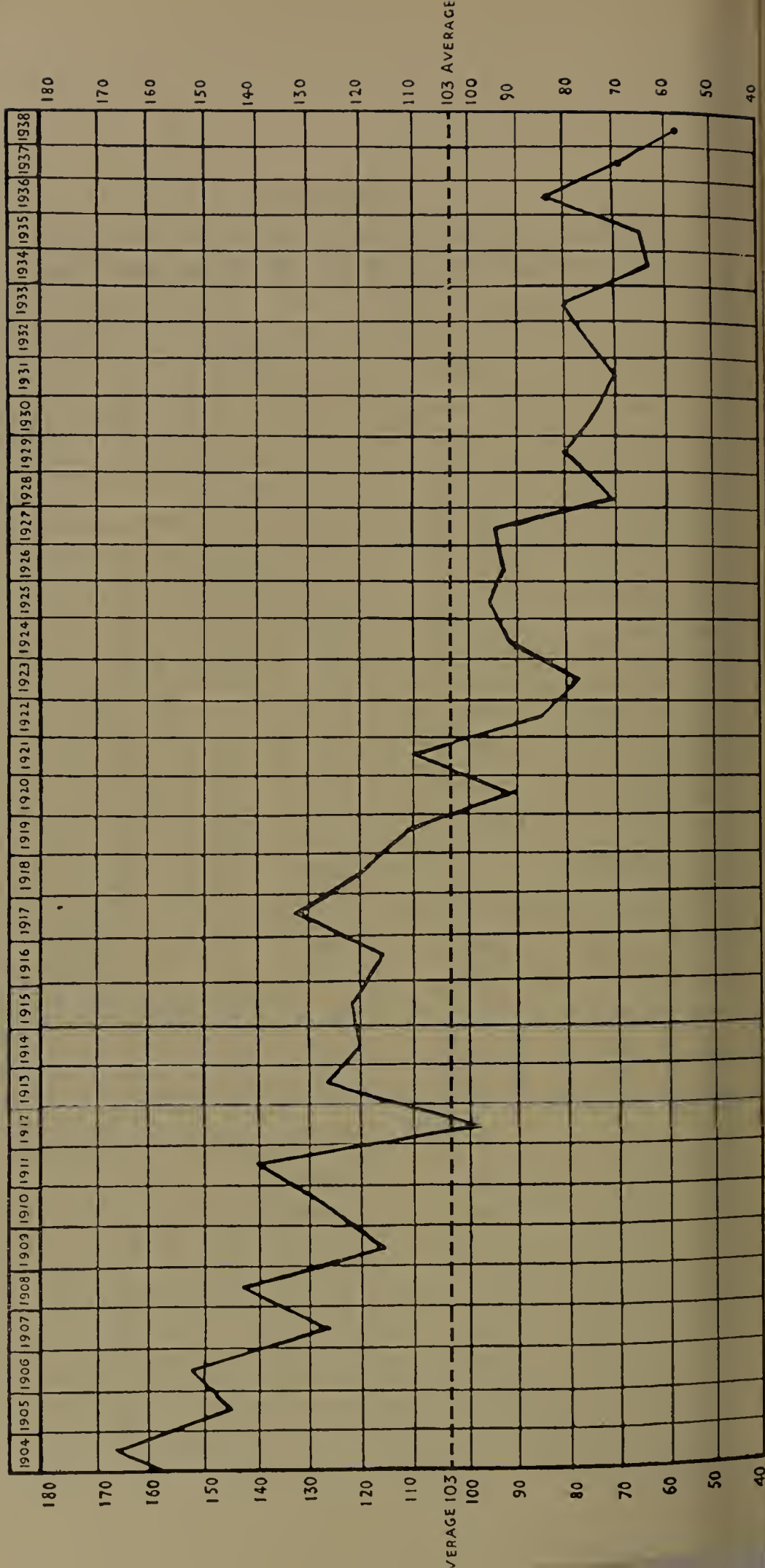
YEAR	Deaths under One Year of Age per 1000 Births		
	Total	Diarrhoeal Diseases	Total less Diarrhoeal Diseases
1912	99	4	95
1913	128	27	101
1914	122	15	107
1915	123	16	107
1916	119	11	108
1917	132	8	124
1918	125	9	116
1919	114	8	106
1920	93	6	87
1921	109	8	101
1922	87	4	83
1923	78	4	74
1924	92	6	86
1925	95	7	88
1926	92	13	79
1927	92	7	85
1928	69	6	63
1929	80	5	75
1930	75	5	70
1931	71	5	66
1932	75	6	69
1933	79	8	71
1934	62	4	58
1935	64	5	59
1936	82	9	73
1937	69	7	62
1938	58	5	53

INFANT MORTALITY IN BRADFORD AND ENGLAND AND WALES  
FOR EACH YEAR, AND IN GROUPS OF FIVE YEARS SINCE 1891.

BRADFORD.		ENGLAND AND WALES.	BRADFORD.		ENGLAND AND WALES.
	Average			Average	
1891	181	149	1916	119	91
1892	155	148	1917	132	97
1893	198	159	1918	125	97
1894	144	137	1919	114	89
1895	203	161	1920	93	80
1896	143	148	1921	109	83
1897	179	156	1922	87	77
1898	184	160	1923	78	69
1899	181	163	1924	92	75
1900	140	154	1925	95	75
1901	168	151	1926	92	70
1902	139	133	1927	92	69
1903	148	132	1928	69	65
1904	167	145	1929	80	74
1905	144	128	1930	75	60
1906	152	132	1931	71	66
1907	124	118	1932	75	65
1908	143	120	1933	79	64
1909	116	109	1934	62	59
1910	127	106	1935	64	57
1911	139	130	1936	82	59
1912	99	95	1937	69	58
1913	128	109	1938	58	53
1914	122	105			
1915	123	110			

INFANT MORTALITY, 1904-1938.

Average for 35 years ... 103.



**(B) MATERNITY.**

There were 17 deaths of women in childbirth during 1938 which gives a maternal mortality rate of 4.15 per 1,000 of the total births, including the still-births.

The causes of death of women in childbirth may conveniently be divided into two groups, those due to septic infection and those due to toxæmias and other causes. The record of the mortality rate per 1,000 births from each of these groups in previous years in Bradford and England and Wales is shown below.

**MATERNAL MORTALITY RATES IN PREVIOUS YEARS.**

Year	BRADFORD			ENGLAND AND WALES		
	Puerperal Sepsis	Other Puerperal Causes	Total Puerperal Mortality	Puerperal Sepsis	Other Puerperal Causes	Total Puerperal Mortality
1926	2.62	4.04	6.66	1.60	2.52	4.12
1927	2.88	3.09	5.97	1.57	2.54	4.11
1928	2.91	2.91	5.82	1.79	2.63	4.42
1929	2.42	2.64	5.06	1.80	2.53	4.33
1930	3.27	1.74	5.01	1.92	2.48	4.40
1931	1.64	3.04	4.68	1.66	2.45	4.11
1932	2.61	3.08	5.69	1.61	2.60	4.21
1933	1.96	2.69	4.65	1.83	2.68	4.51
1934	1.89	3.54	5.43	2.03	2.57	4.60
1935	1.69	0.97	2.66	1.61	2.32	3.93
1936	1.47	3.17	4.64	1.34	2.31	3.65
1937	0.95	1.67	2.62	0.97	2.26	3.23
1938	0.49	3.66	4.15	0.89	2.19	3.08

These deaths are classified in the three following tables, according to the age periods of the mother, the duration of pregnancy, and the condition from which the deaths arose.

**DEATHS IN CHILDBIRTH.****(1) Age and Classified Cause.**

Classified Cause				Age in Years					Total
				20	25	30	35	40	
Toxæmias	...	...	...	2	1	1	1	—	5
Septic Conditions	...	...	...	—	1	—	1	—	2
Pre-eclampsia	...	...	...	—	—	1	—	1	2
Haemorrhage	...	...	...	1	—	1	3	—	5
Other Causes	...	...	...	—	1	2	—	—	3
Total				3	3	5	5	1	17

(2) *Duration of Pregnancy and Classified Cause.*

Classified Cause	Duration of Pregnancy									
	1 mth.	2 mos.	3 mos.	4 mos.	5 mos.	6 mos.	7 mos.	8 mos.	9 mos.	Total
Toxæmias ... ..	—	—	1	—	—	—	—	4	—	5
Septic Conditions	—	—	—	—	—	—	—	—	2	2
Ectopic Gestations	—	—	2	—	—	—	—	—	—	2
Hæmorrhage ...	—	—	1	—	—	—	—	1	3	5
Other Causes ...	—	1	—	—	—	—	—	1	1	3
Total ...	—	1	4	—	—	—	—	6	6	17

(3) *Age Period and Duration of Pregnancy.*

Duration of Pregnancy				Age Period—Years					
				20	25	30	35	40	Total
1 month ... ..	...	...	...	—	—	—	—	—	—
2 months ... ..	...	...	...	—	1	—	—	—	1
3 months ... ..	...	...	...	1	—	1	1	1	4
4 months ... ..	...	...	...	—	—	—	—	—	—
5 months ... ..	...	...	...	—	—	—	—	—	—
6 months ... ..	...	...	...	—	—	—	—	—	—
7 months ... ..	...	...	...	—	—	—	—	—	—
8 months ... ..	...	...	...	1	1	2	2	—	6
9 months ... ..	...	...	...	1	1	2	2	—	6
Totals... ..	...	...	...	3	3	5	5	1	17

*Supervision of Midwives.* The work is undertaken by a woman Medical Officer of the Maternity and Child Welfare Staff and a Nursing Assistant Supervisor.

The municipal midwives are seen at least once a week and the midwives in private practice are also inspected at regular intervals. In accordance with the provisions of the Nursing Homes Registration Act, 1927, maternity homes have been inspected regularly throughout the year.

The number of midwives in domiciliary practice in Bradford on 31 December, 1938, was 76. Of these, 33 were municipal midwives and 43 were midwives in private practice. The 33 district municipal midwives attended 1,615 cases during the year, 1,457 as midwives and 158 as maternity nurses. The 43 midwives in private practice attended 1,541 cases during the year, 541 as midwives and 494 as maternity nurses.

The total number of cases attended by all midwives during 1938 was 1,831 on the district, and 167 in maternity homes, making a total of 1,998, which is 48·5% of the total births. Acting as maternity nurses, they attended 258 births on the district and 394 births in maternity homes, making a total of 652 cases.

The visits paid by the midwives were as follows :—

	Ante-Natal Visits.	Post-Natal Visits.
Municipal midwives ... ..	11,520	28,227
Midwives in private practice ...	3,954	8,216
	<hr/> 15,474	<hr/> 36,443

The number of notifications of sending for medical aid was 680 or 34% of their cases. In 556 cases medical aid was called on account of the mother, and in 124 cases on account of the child, as follows :—

The Mother				The Child			
Ruptured Perineum ... ..	241			Dangerous Feebleness ... ..	33		
Uterine Inertia ... ..	28			Asphyxia ... ..	6		
Malpresentation ... ..	31			Inflammation of Eyes ... ..	50		
Antepartum Hæmorrhage ... ..	26			Malformation ... ..	5		
Pyrexia ... ..	31			Spina Bifida ... ..	5		
Adherent Placenta ... ..	12			Skin Eruption ... ..	6		
Postpartum Hæmorrhage ... ..	24			Other Abnormal Conditions ... ..	19		
Phlebitis ... ..	6						
Premature Birth ... ..	3			Total ... ..	124		
Abortion ... ..	5						
Dead Fœtus ... ..	5						
Albuminuria ... ..	30						
Heart and Chest Illness ... ..	5						
Antenatal Causes ... ..	10						
Eclampsia ... ..	5						
Prolonged Labour ... ..	44						
Precipitate Labour ... ..	8						
mastitis ... ..	7						
Illness of Mother ... ..	16						
Other Causes ... ..	19						
Total ... ..	556						

Four notices were sent to the Local Supervising Authority of the deaths of infants under the care of the midwife before the arrival of the medical practitioner. The midwives reported 57 still births, or about 3% of their cases. In addition, 33 still births were reported by midwives as maternity nurses.

Under the Midwives' Act, 1918, the total number of claims for midwifery fees sent in by medical practitioners during 1938 was 376. The Local Supervising Authority determined to recover in full 199 of these claims, and in part 28, leaving 149 to be paid in full by the Authority. The total cost to the Authority of these claims was £196 11s. 0d.

In addition, 135 midwives' fees were paid in full by the Authority, and 4 paid in part, the total to the Authority being £186 8s. 6d.

#### *Ante-Natal Work.*

Five sessions weekly are held at the Central Clinic for ante-natal patients.

The times are as follows :—

Monday Morning	... 9—10.	
Tuesday Morning	... 9—10.	Tuesday Afternoon 1.30—2.30.
Wednesday Morning	9—10.	
Friday Morning	... 9—10.	

Seven hundred and eighty-two patients attended, of whom 124 were later referred to St. Luke's Hospital Ante-Natal Clinic. Two thousand four hundred and eight attendances were made at the Central Clinic during the year. This is an increase of 98 patients and 414 attendances as compared with 1937.

#### BRANCH CLINICS.

Ante-natal patients are seen at the following Children's Clinics :—

Green Lane :	Monday Afternoon 1.30—2.30
Mount Street :	Tuesday Afternoon 1.30—2.30
Lapage Street :	Thursday Afternoon 1.30—2.30
Idle :	Friday Afternoon 1.30—2.30
Bierley :	Tuesday Morning 9.0—10.30

On May 14th, a Maternity and Child Welfare Branch Clinic was opened at Esholt. This Clinic is held once monthly on Wednesday afternoons. Expectant mothers are seen at this Clinic.

Two hundred and fifty-two patients attended 1,177 times at branch clinics. This is an increase of 135 patients and an increase of 87 attendances.

The total number of patients attending the various ante-natal clinics, including St. Luke's Hospital and the Maternity Home, was 2,534. The total number of attendances was 11,803.

The Health Visitors carry out the home supervision of expectant mothers. In 1938 they paid 1,287 visits to 707 patients.

The percentage of the total notified births (live and still) represented the total number of women attending ante-natal clinics during 1938 was 61.49%.

The accommodation for maternity cases available in Bradford includes 100 beds at the Maternity Hospital, 150 beds at the Municipal General Hospital, and 28 beds at St. Monica's Home.

There were 1,151 live births and 99 still births in the Municipal General Hospital. They are reported on page 123. The number of cases dealt with at the Bradford Maternity Hospital in 1938 was 144. The number of live children born was 141. There were 3 still births.

The number of cases dealt with at St. Monica's Home was 64.

The number of Puerperal Fever cases notified in 1938 was 10, and Puerperal Pyrexia 47, of which 53 were admitted to Hospital. There were 2 deaths from Puerperal Fever.

The total number of cases of Ophthalmia Neonatorum notified was 11, in 14 cases the vision was unimpaired, in 2 cases the patient was still under treatment at the end of the year and 1 case died.

*Still Births.* The number of still births registered in 1938 was 4.8% of the total births registered. The number notified was 182 and for the purpose of comparison the following table is given:—

STILL BIRTHS NOTIFIED IN PREVIOUS YEARS.

Year ...	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Number	200	183	195	177	173	156	201	171	179	165	182
Per cent.	4.7	4.2	4.3	4.3	4.3	4.0	4.9	4.1	4.3	3.8	4.4

## (C) INFANCY.

During the year 1938 the number of births registered in Bradford was 4,096, while the number notified under the Notification of Births Act, 1907, was 4,121.

## RECORD OF PREVIOUS YEARS.

	1930	1931	1932	1933	1934	1935	1936	1937	1938
Births registered	4,445	4,368	4,371	4,195	4,379	4,299	4,119	4,193	4,096
Births notified	4,506	4,277	4,213	4,072	4,307	4,166	4,158	4,279	4,121
Notifications to 100 registrations	101·4	97·8	96·4	97·1	98·4	96·9	100·9	102·1	100·6

## TIME OF RECEIPT OF NOTIFICATION OF BIRTHS, 1938.

Persons notifying	Receipt of Notification							Total	Percent received late
	Within 2 days	3-7 days	1-2 weeks	2-3 weeks	3-4 weeks	1-2 m'nths	2-3 m'nths		
Doctor ...	57	26	2	1	—	1	—	87	34·5
Midwife ...	1,632	540	7	—	—	—	—	2,179	25·1
Father ...	2	2	1	2	—	—	—	7	71·4
Doctor and Midwife ...	255	175	2	—	—	—	—	432	41·0
Father and Doctor ...	1	—	—	—	—	—	—	1	—
Institutions	1,201	207	3	2	1	1	—	1,415	15·1
Total ...	3,148	950	15	5	1	2	—	4,121	23·6

Following the receipt of the notification generally all cases notified by midwives are visited as soon as possible after the birth, and also those cases with doctors in attendance where the home circumstances seem to warrant it. The number of births notified in 1938 which were visited was 3,735, or 93% of all the births.

## BIRTHS VISITED IN 1938.

Person in attendance	Times between Birth and Visit					Total
	1 week	2 weeks	3 weeks	4 weeks	Over 4 weeks	
Doctor ... ..	273	126	42	5	7	453
Midwife ... ..	1,996	33	—	—	—	2,029
Maternity ... ..	2	1,207	42	2	—	1,253

Of the 3,735 births visited it was considered that 130 required visitation once only during the first year, while 3,605 were selected for more frequent revisitation during their first year of life. The total number of visits paid in 1938 to infants was 37,176.

## FEEDING OF INFANTS UNDER VISITATION COMPLETING FIRST YEAR.

	Hand fed from birth	Mixed feeding from birth	Wholly breast fed				
			Under 1 month	Under 3 months	Under 6 months	Under 9 months	9 months and over
Infants ...	154	35	253	910	1,200	970	62
Percentage ...	4.3	1.0	7.1	25.4	34.0	27.0	1.2

## WORK OF MOTHERS IN 1938.

	Outside the home			Inside the Home
	Factories	Other Work	Total	
Within six months before birth ...	365	363	728	2,855
Within six months after birth ...	325	188	513	2,985

This table as compared with the previous year shows a much larger number of mothers employed outside the home before birth, and a smaller number employed after birth.

Of the 733 mothers working within six months before confinement 295 were employed within three months before birth, and of the 513 mothers working within six months after confinement 378 returned to work within three months after the birth.

*Child Centres.* The Local Authority conducts 13 Child Clinics in the city, at each of which a medical officer attends. The principal child clinic is situated in Edmund Street, and it is open every week-day morning and afternoon except Thursdays and Saturdays, when it is open in the morning only. The following table shows the location of each clinic, the days on which it is in operation, and the total attendances last year.

CHILD CLINICS IN BRADFORD.

Clinic	Days of Attendance	Times of Attendance	Attendances during year
Central, Edmund Street	Daily ... ..	Morning and Afternoon	36,600
Mount Street ... ..	Tuesday ... ..	Afternoon ... ..	3,345
Green Lane ... ..	Monday and Thursday ... ..	Afternoon ... ..	8,668
Otley Road ... ..	Wednesday ... ..	Morning and Afternoon	7,438
Brownroyd ... ..	Thursday ... ..	Morning and Afternoon	7,080
Great Horton ... ..	Monday ... ..	Morning ... ..	2,714
Wakefield Road ... ..	Alternate Wednesdays ... ..	Afternoon ... ..	1,544
Low Moor ... ..	Tuesday ... ..	Afternoon ... ..	3,232
Lapage Street ... ..	Thursday ... ..	Afternoon ... ..	4,426
Idle ... ..	Friday ... ..	Afternoon ... ..	3,214
Clayton ... ..	Alternate Wednesdays ... ..	Afternoon ... ..	725
Bierley ... ..	Friday ... ..	Afternoon ... ..	3,332
Esholt ... ..	Wednesdays (monthly) ... ..	Afternoon ... ..	140
Nursing Mothers' Ward	Daily except Thursday and Saturday. ... ..	Morning and Afternoon	934

These centres are all doing excellent work and are keenly appreciated by those who take advantage of their services. They are primarily special educational institutions for instruction to mothers on how to keep babies and young children healthy. Mothers seeking such knowledge are welcomed, especially if the baby is well it is often too late to seek the knowledge when the baby is ill. All mothers require this knowledge and the work of the centres is directed to benefiting the child through the mother, whose co-operation is most desired.

The total number of attendances at all Clinics during 1938 was 2,458. The attendance at the Central Clinic was 36,600 and at the ranches 45,858. The number of infants attending clinics for the first time under one year was 2,643, or 67.1% of the births. The number of children attending for the first time over one year was 318. Fifty thousand seven hundred and ninety-four of the attendances were made by children under one year of age and 31,664 by children between the ages of one and five years. There has been an increase of 624 in the number of children registered and an increase of 14,642 attendances at the child clinics in 1938.

The work at the Central Clinic is arranged into sessions for infants, sessions for children, and "family" sessions attended by mothers who have an infant and one or more children. At the branch clinics, which are attended for the most part by mothers and families, infants and young children are dealt with at each session.

The following table shows the growth of the work at the Clinic since its inception.

#### CHILD CLINICS.

Year	New Cases	Total attendances	Average weekly attendances	Average daily attendances
1914	2,488	31,193	600	120
1915	1,987	28,192	540	108
1916	1,998	23,490	452	90
1917	1,721	19,194	369	74
1918	1,606	17,068	328	65
1919	1,810	19,496	375	75
1920	2,832	28,829	554	110
1921	2,872	35,784	688	137
1922	2,115	25,868	497	99
1923	1,926	24,320	468	93
1924	1,822	24,952	480	96
1925	3,102	35,937	680	136
1926	2,551	38,279	736	147
1927	2,341	41,337	795	159
1928	2,604	50,689	975	195
1929	2,804	55,030	1,101	220
1930	2,908	60,135	1,203	241
1931	2,782	64,749	1,295	259
1932	2,633	66,233	1,325	265
1933	2,634	68,081	1,362	272
1934	3,087	67,702	1,354	271
1935	2,615	69,062	1,381	276
1936	2,590	64,806	1,296	259
1937	2,737	67,816	1,356	271
1938	2,961	82,458	1,649	330

*Infant Life Protection.*

*Children Act, 1908, and Children and Young Persons Act, 1932.*

Under the provisions of this Act every person, other than a relative, who undertakes for payment the nursing and maintenance of any child under the age of nine years, apart from its parents, or having no parents, must give notice to the Local Authority.

At the end of 1938 there were 41 persons on the Register who were receiving children for reward in Bradford. The number of children on the register was 44. One hundred and fifty-five visits were paid by Health Visitors to these foster children.

*Death-rate Among Young Children.* The mortality rates among children from 1—2 years and 2—5 years are seen in the following tables. The number of cases of Measles coming under notice under 5 years of age was 2,932, of whom 86 were removed to municipal hospitals. The number of cases of Whooping Cough under 5 years was 1,141.

**MORTALITY RATE BETWEEN 1 AND 2 YEARS PER 1,000 PERSONS LIVING AT THESE AGES.**

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
General Mortality Rate ... ..	28·8	16·9	15·4	9·0	15·9	11·4	16·0	13·3	9·2	8·8
Mortality Rate from specified Group Causes:—										
Common Infectious Diseases	8·40	6·30	3·79	3·10	4·05	2·50	4·13	2·72	0·83	2·48
Influenza ... ..	0·51	0·25	0·50	0·52	1·08	—	—	—	—	—
Tuberculosis ... ..	2·54	1·77	1·26	0·52	1·62	0·83	0·83	0·81	0·56	0·83
Bronchitis and Pneumonia ...	12·9	3·53	5·55	3·88	4·59	5·22	6·06	7·06	4·72	1·93
Diarrhœa and Enteritis ...	0·76	1·26	0·50	—	0·54	0·28	0·55	0·54	1·11	0·27
Estimated Population between 1 and 2 years on June 30th ...	3,928	3,968	3,961	3,871	3,706	3,604	3,629	3,683	3,601	3,622

MORTALITY RATE BETWEEN 2 AND 5 YEARS PER 1,000 PERSONS LIVING  
AT THESE AGES.

	1931	1932	1933	1934	1935	1936	1937	1938
General Mortality Rate	4.84	4.17	6.07	5.95	6.60	4.72	4.35	2.76
Mortality Rate from Specified Causes:—								
Common Infectious Diseases ... ..	1.19	1.11	1.62	2.10	2.60	2.68	1.67	0.74
Influenza ... ..	0.08	0.26	0.17	0.09	0.09	0.18	0.09	0.18
Tuberculosis ... ..	0.34	0.77	0.68	0.35	0.27	0.18	0.28	0.37
Bronchitis and Pneumonia ... ..	1.70	0.77	1.71	0.79	1.45	0.37	0.74	0.55
Estimated Population between 2 and 5 years on June 30th ...	11,780	11,748	11,697	11,423	11,057	10,815	10,811	10,821

(D) GENERAL.

The Health Visitors paid 77,206 visits to cases during the year. Of these, 1,277 were made to ante-natal cases, 37,176 to infants under 5 years of age, 3,735 being primary visits, 28,141 to children between 1 and 5 years of age, 3,416 to tuberculosis cases, 10 to cases of infective enteritis, 1,065 to cases of measles, 1,633 to cases of whooping cough, and 488 to nursing mothers and other cases.

The dental work in connection with maternity and child welfare is shown in the table on page 152, where it will be seen that 373 mothers and 625 young children were under treatment for dental conditions during 1938.

The main voluntary effort in connection with Maternity and Child Welfare in Bradford is undertaken by the Bradford Maternity Care Committee, which still continues its educational work among mothers attending various centres. Mothers are instructed in dressmaking, sewing, knitting, cookery and mothercraft by experienced teachers. There are five centres, namely, Wakefield Road, Otley Road, Lilycroft, Green Lane and Fairweather Green. The total number of mothers registered at the classes is 227, with an average weekly attendance of 19.

During the year 2,123 new garments were made at the classes, and over 250 garments were re-made from old clothes brought by the mothers. There was also a good proportion of garments knitted by the mothers. A maternity box is available for the use of the poorer members at the time of their confinement.

The City of Bradford Silver Jubilee Home, which is a holiday and convalescent home for mothers and children at Heysham, had a most successful season. During the summer months 183 mothers and 260 children visited the Home. Out of this number 57 paid for themselves, 108 were sent to the Home by the Bradford Hospital and Convalescent Fund, 5 by the Health Committee, and 13 by other organisations. Fifty children were sent by the Victoria Convalescent Fund.

*Home Helps.* During the year home helps have attended 39 cases covering 468 days. Of these, 8 received the service free, 27 paid part cost, and 4 paid full cost.

## VI.—BACTERIOLOGICAL AND PATHOLOGICAL WORK.

REPORT BY THE CITY PATHOLOGIST,

M. A. C. BUCKELL, M.B., B.S. (London), D.P.H.

Thirty-eight thousand two hundred and twenty-six specimens were examined in the Laboratories during 1938, 2,247 less than in 1937.

The analysis of these figures given in the following table shows that 9,952 of the 2,247 is accounted for by a diminished amount of work done for Diphtheria.

## ANALYSIS OF THE WORK OF THE LABORATORIES, 1934 TO 1938.

	1934	1935	1936	1937	1938
Anthrax ... ..	597	2,127	2,099	2,315	2,055
Infectious diseases ... ..	29,946	34,010	38,591	29,399	26,524
Food ... ..	3,901	4,599	3,955	3,934	4,525
Clinical ... ..	4,416	2,345	2,576	2,735	3,145
Biochemical } ... ..		2,041	2,217	2,290	1,977
Total ... ..	38,860	45,122	49,438	40,673	38,226
Diphtheria ... ..	14,461	17,347	21,636	12,488	10,536
Remainder ... ..	24,399	27,775	27,802	28,185	27,690

Nine thousand one hundred and twenty-five specimens were examined in the Laboratories at St. Luke's Hospital, 784 more than in 1937.

## ANTHRAX :

Three cases of suspected human infection were investigated; all were negative.

## Wool, etc.

Bacteriological control of the work of the Government Wool Disinfecting Station at Liverpool was continued as in former years, 38 samples being examined for Anthrax and submitted to a comparative virility test.

No anthrax was found in any of the 494 Disinfected samples.

*B. anthracis* was recovered from 60 (14.53%) of 413 samples of goat hair from twenty-eight different sources from various parts of the world, and from two out of 81 samples of wool.

*Anthrax Summary :*

Human	...	...	...	...	...	3
Wool, etc.—Local samples	...	...	...	...	...	0
Liverpool Raw	...	...	...	...	...	494
Liverpool Disinfected	...	...	...	...	...	494
Biological Tests	...	...	...	...	...	76
Sterility Tests	...	...	...	...	...	988
						2,055

## INFECTIOUS DISEASES :

*Dysentery.* Flexner's bacillus was isolated from fifteen cases, all were of the Z.X. Type. The Sonne Bacillus was recovered from seven cases.

## DYSENTERY.

	Flexner	Sonne	Newcastle	Total
1931 ...	12	—	—	12
1932 ...	4	16	10	30
1933 ...	1	9	3	13
1934 ...	29	7	—	36
1935 ...	20	35	—	55
1936 ...	5	23	—	28
1937 ...	9	37	—	46
1938 ...	15	7	—	22

*Enteric Fever.*

No cases of infection by *E. typhosa* were encountered during the year. Four cases of infection by *S. paratyphi* were detected.

*Food Poisoning.* Two cases of infection by *S. Newport* were encountered, but in neither instance was any connection with food able to be established.

*Undulant Fever.* No cases of Undulant Fever were encountered during the year. Forty specimens of blood were examined.

*Venereal Diseases Summary :*

Dark ground examinations	...	...	...	38
Lange Goldsol Reactions	...	...	...	7
Wasserman Reactions	...	...	...	5,575
Kahn Reactions	...	...	...	4,909
Smears for gonococci	...	...	...	2,308
				<hr/>
				12,837
				<hr/>

*Infectious Diseases Summary :*

Cerebrospinal Fever	...	...	...	29
Diphtheria	...	...	...	10,536
Dysentery	...	...	...	286
Enteric Fever	...	...	...	195
Food Poisoning	...	...	...	12
Malaria	...	...	...	3
Meningitis	...	...	...	63
Pneumonia	...	...	...	55
Puerperal Fever	...	...	...	46
Tuberculosis Cerebrospinal Fluids	...	...	...	15
Fæces	...	...	...	13
Fluids	...	...	...	11
Pus	...	...	...	36
Sputa	...	...	...	2,254
Urine	...	...	...	48
Biological tests	...	...	...	8
Undulant Fever	...	...	...	40
Venereal diseases	...	...	...	12,837
Vincent's Angina	...	...	...	25
Whooping Cough	...	...	...	12
				<hr/>
				26,524
				<hr/>

## FOOD.

*Milk.* One thousand and ninety-six samples of milk were examined by the methods laid down in the Minister of Health's Milk (Special Designations) Order of 1936. Of these 344 samples were Street Samples of Raw milk from sources within the City, 332 similar samples from sources outside the City, 173 samples of Tuberculin Tested Milk and 55 Accredited. The results from these are given in Table 6.

Of 904 samples 559 (61·84%) pass the Methylene Blue Reductase Test, 748 (82·73%) pass the B. coli test and 551 (60·95%) pass both tests.

It will be seen that 79·30% of the graded milks pass both tests, and of the Street samples from sources within the City 59·88% and only 49·39% of those from sources outside the City.

The Methylene Blue Reductase Test is divided into two periods. From May to October the duration of the test is  $4\frac{1}{2}$  hours and from November to April  $5\frac{1}{2}$  hours. In all three groups of figures better results are obtained during the longer period suggesting that the test is more stringent during the summer months.

Comparing these figures with those obtained in 1937, 0·91% more pass the Methylene Blue Test in 1938 and 2·47% more pass both tests.

The increased stringency of the test during the summer months was also seen in 1937.

TABLE VI.  
1938 MILKS.

	No.	Methylene Blue Reduc- tase Test Pass		Coli Absence in 0·01 c.c.		Pass Coli and M.B.R.T.	
		No.	%	No.	%	No.	%
City In: $4\frac{1}{2}$ hours ... ..	162	96	59·26	142	87·86	93	57·41
$5\frac{1}{2}$ „ ... ..	182	113	62·09	154	84·62	113	62·09
Total ... ..	344	209	60·71	296	86·05	206	59·88
City Out: $4\frac{1}{2}$ hours ... ..	178	82	46·07	128	71·91	80	44·94
$5\frac{1}{2}$ „ ... ..	154	86	55·85	131	85·06	84	54·55
Total ... ..	332	168	50·60	259	78·01	164	49·39
Accredited and T.T. $4\frac{1}{2}$ hours	120	85	70·83	85	70·83	84	70·00
$5\frac{1}{2}$ „	108	97	89·81	108	100·00	97	89·81
Total ... ..	228	182	79·83	193	84·65	181	79·39
	904	559	61·84	748	82·73	551	60·95

In former years the cleanliness of the City's milk supply was assessed by the number of samples passing the Certified Standard (no B. coli in 0.1 c.c. and less than 30,000 organisms per c.c.).

The results of similar tests on the samples of raw milk received in 1938 are given in Table VII. Comparing these figures with those of former years, the samples in the City have given the poorest results even for some years.

Those from outside the City show an improvement on 1937, but have not reached the previous standard.

TABLE VII.

	No. of Samples Examined	No. passing Certified Standard	Percentage passing
City, In ... ..	344	184	53.49%
City, Out ... ..	332	155	46.69%
Accredited and T.T. ... ..	228	181	79.39%
Total ... ..	904	520	57.52%

TABLE VIII.

*Percentage Passing " Certified " Standard.*

Year	In	Out
1938 ... ..	53.49%	46.69%
1937 ... ..	62.64%	41.26%
1936 ... ..	67.41%	57.27%
1935 ... ..	71.25%	53.07%
1934 ... ..	68.29%	50.12%

It is interesting to note that despite the falling off in the bacterial standard in the milk supply, there has been a slight improvement in the cleanliness as judged by the Methylene Blue Reductase Test; 57.52% the samples pass the " Certified " Standard and 61.84% the Methylene Blue Reductase Test.

450 pass Certified and Meth. Blue Reductase Tests	49.78%
70 pass Certified, fail M.B.R.T. ... ..	7.73%
109 pass M.B.R.T., fail Certified ... ..	12.06%
275 fail both tests ... ..	30.42%
Agree 725, 80.20%.	
Disagree 179, 19.81%.	

*Pasteurised Milk.*—Of 82 samples examined, 62 pass the required standard, 20 fail. *B. coli* was present in 1 c.c. or less in 35.

Sixty-five samples were submitted to the Phosphatase Test; 42 of these pass, 23 fail.

Of the 42 samples passing the Phosphatase Test, 35 pass the bacteriological and 7 fail.

*Brucella Abortus.* Six hundred and forty-five samples of milk were examined for the presence of *Brucella abortus*.

Three hundred and thirty-six samples from 219 sources within the City showed 44 infected samples from 41 separate sources; 18.72% of the sources showed infection.

Two hundred and seventy samples from 208 sources outside the City showed 41 infected samples from 38 separate sources, 18.27% of infected sources.

Three out of 38 samples of Accredited Milk and one of 16 samples of Tuberculin Tested Milk contained *Brucella abortus*.

The duplicate samples examined, in some instances, three or four from one source, showed that infection of the supply was often transitory or else intermittent, negative results being frequently followed by subsequent positives or positives by negatives. The samples are, therefore far too few to permit of any accurate estimate of the extent to which the general milk supply is contaminated by *Br. abortus*, but the figures obtained suggest that this danger to the Public Health is both wide spread and very prevalent. That so high a proportion of "Accredited" milk should show infection by *Br. abortus* suggests that legislation is urgently needed to exclude this source of danger to the Public Health from all graded milk.

*Tuberculosis.* Seven hundred and eight samples of milk were examined biologically for the presence of *M. tuberculosis*; 28 (3.98%) gave evidence of infection.

## MILK SUMMARY :

Street samples, City, In	...	...	...	344
Street samples, City, Out	...	...	...	332
Grade T.T.	...	...	...	173
Accredited	...	...	...	55
Pasteurised	...	...	...	82
Heat Treated	...	...	...	13
Sterilised	...	...	...	25
Institution	...	...	...	72
Phosphatase Tests	...	...	...	65
Biological for T.B.	...	...	...	703
Abortus	...	...	...	645
				2,509
Bottles for Sterility	...	...	...	12
				2,521

## ICE CREAM.

The following table gives a summary of the results obtained :—

Year	No. of Samples examined	B. coli absent from		Total bacteria per cc. less than	
		1.0 cc.	0.1 cc.	10,000	100,000
1929 ...	77	24.67%	51.92%	2.59%	20.78%
1930 ...	75	36.93%	53.21%	25.33%	42.97%
1931 ...	111	70.25%	84.69%	34.23%	55.86%
1932 ...	122	46.72%	60.66%	30.33%	53.28%
1933 ...	143	47.55%	58.74%	30.07%	60.84%
1934 ...	136	49.26%	62.5%	23.53%	53.68%
1935 ...	117	33.33%	65.81%	28.20%	64.96%
1936 ...	110	42.73%	82.73%	37.27%	63.63%
1937 ...	125	57.6 %	78.4 %	39.21%	62.40%
1938 ...	111	42.35%	64.84%	30.65%	58.56%
Average ...	1127	45.69%	66.02%	29.10%	55.81%

Bacteriological standards for Ice Cream are still badly needed; their continued absence makes the control of this food difficult.

Although on the whole there has been some improvement during the past ten years, many examples of heavy pollution are still encountered.

Absence of *B. coli* in 0.1 c.c. and less than 100,000 organisms on Agar of 37°C 48 hours should be attainable if reasonable care be exercised in the preparation and distribution of the cream. Maintenance of such a standard would give opportunity for closer supervision and the elimination of much of the present contamination. The widespread consumption of this substance under existing circumstances causes it to be a continual source of danger to the Public Health.

#### WATER.

The following tables give the results obtained from the examination of the routine samples of water from the various sources of supply to the City.

#### RESULTS OF *B. COLI* TESTS.

	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	To
<b>NIDD:</b>													
No. examined	29	34	28	23	26	24	28	26	28	28	28	25	32
No. <i>B. coli</i> in													
100 c.c. ...	27	31	28	23	25	19	22	18	22	14	19	17	26
% Negative ...	93.1	91.2	100	100	96.16	79.16	78.57	69.23	78.57	50	67.86	68.00	81
<b>BARDEN:</b>													
No. examined	27	25	25	20	26	23	27	26	26	25	27	27	30
No. <i>B. coli</i> in													
100 c.c. ...	27	23	25	19	26	22	26	26	24	19	27	27	29
% Negative ...	100	92	100	95	100	95.65	96.3	100	92.31	73.00	100	100	95
<b>GILSTEAD FILTERS:</b>													
No. examined	8	12	13	10	11	11	14	14	14	13	14	9	14
No. <i>B. coli</i> in													
100 c.c. ...	7	12	13	10	11	9	13	11	9	11	11	9	12
% Negative ...	87.5	100	100	100	100	81.81	92.85	78.57	64.28	84.62	78.57	100	88
<b>STUBDEN:</b>													
No. examined	8	8	12	10	12	10	14	14	14	13	13	8	13
No. <i>B. coli</i> in													
100 c.c. ...	8	8	12	10	12	9	11	12	12	12	11	8	12
% Negative ...	100	100	100	100	100	90	78.57	85.7	85.7	92.3	84.6	100	91
<b>THORNTON:</b>													
No. examined	8	11	13	10	12	10	13	14	13	13	13	9	13
No. <i>B. coli</i> in													
100 c.c. ...	8	11	13	10	12	10	12	13	13	12	13	8	13
% Negative ...	100	100	100	100	100	100	92.3	92.8	100	92.3	100	88.8	97

## TYPE OF COLIFORM ORGANISMS RECOVERED.

	No. exam.	No. B. coli in 100c.c.	Faecal type I			Faecal type II	Inter- mediate		Aero- genes	
			Less than		More than 10		I	II	I	II
			2	10						
Nidd ... ..	327	253	39	20	3	—	4	4	3	1
Barden... ..	313	277	6	5	2	—	2	11	—	—
Gilstead filters	143	114	10	6	1	4	—	6	2	—
Stubden ... ..	136	120	6	4	1	—	—	4	1	—
Thornton ... ..	139	131	3	1	—	1	—	2	—	1
Total ... ..	1058	895	64	36	7	5	6	27	6	2

The Presumptive B. coli test was negative in 100 c.c. in 895 (84.61%) of all samples.

Of 153 positive presumptive tests 107 (69.93%) proved to be faecal type I.

Comparisons of the results of the B. coli test for the past 10 years are given in the following table :—

Year	NIDD		BARDEN	
	No. examined	B. coli absent from 100 c.c.	No. examined	B. coli absent from 100 c.c.
1929 ... ..	38	47.82%	70	62.85%
1930 ... ..	50	88.00%	98	75.51%
1931 ... ..	77	90.91%	176	46.59%
1932 ... ..	77	89.41%	229	62.44%
1933 ... ..	124	88.71%	143	90.91%
1934 ... ..	246	76.83%	306	88.23%
1935 ... ..	249	93.98%	285	96.49%
1936 ... ..	158	77.85%	261	93.87%
1937 ... ..	186	88.17%	289	92.73%
1938 ... ..	327	81.04%	304	95.72%

## FOOD SUMMARY :

Milk	...	...	...	...	...	2,521
Water	...	...	...	...	...	1,303
Shell-fish	...	...	...	...	...	530
Watercress	...	...	...	...	...	60
Ice Cream	...	...	...	...	...	111
						<hr/>
						4,525
						<hr/>

## CLINICAL SPECIMENS.

Blood coagulation time	...	...	...	1
" counts	...	...	...	138
" cultures	...	...	...	17
" films	...	...	...	52
" fragility tests	...	...	...	3
" sedimentation Rate	...	...	...	18
" Reticulocyte count	...	...	...	18
" Platelet count	...	...	...	7
" Grouping	...	...	...	22
Body fluids	...	...	...	145
Fæces	...	...	...	125
Hair for Ringworm	...	...	...	16
Pus	...	...	...	305
Parasites	...	...	...	26
Histological Sections	...	...	...	835
Urine	...	...	...	1,278
Post Mortem examinations	...	...	...	101
Vaccines	...	...	...	16
Sputa	...	...	...	22
				<hr/>
				3,115
				<hr/>

## BIOCHEMICAL.

Blood Urea	...	...	...	...	735
„ Non-protein Nitrogen	...	...	...	...	6
„ Creatinine	...	...	...	...	1
„ Uric Acid	...	...	...	...	3
„ Serum Protein	...	...	...	...	9
„ „ Albumen	...	...	...	...	6
„ „ Globulin	...	...	...	...	6
„ Sugar	...	...	...	...	60
„ „ tolerance curve	...	...	...	...	38
„ Laevulose tolerance curve	...	...	...	...	3
„ Van den Burgh	...	...	...	...	40
„ Fouchet	...	...	...	...	31
„ Icteric Index	...	...	...	...	11
„ Cholesterol	...	...	...	...	9
„ Calcium	...	...	...	...	21
„ Phosphorus	...	...	...	...	1
„ Phosphatase	...	...	...	...	1
Urine Urea	...	...	...	...	54
„ Urea concentration test	...	...	...	...	115
„ Bile pigments	...	...	...	...	3
„ Oriel's proteose	...	...	...	...	1
„ Sugar	...	...	...	...	39
„ Lead	...	...	...	...	1
„ Calculi	...	...	...	...	2
„ Hydrogenion concentration	...	...	...	...	85
Fæces occult blood	...	...	...	...	365
„ unaltered bile	...	...	...	...	3
„ creatorrhœa	...	...	...	...	6
„ steatorrhœa	...	...	...	...	6
Test Meals, fractional	...	...	...	...	293
„ single	...	...	...	...	14
Cerebrospinal fluid Urea	...	...	...	...	7
„ Sugar	...	...	...	...	2

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1,977

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## VII.—HOSPITAL ACCOMMODATION.

In the first portion of this report reference is made to the hospital accommodation of the City; in this portion further details of the hospitals under the control of the Local Authority are given.

### (A) MUNICIPAL GENERAL HOSPITAL.

REPORT BY HOLROYD SLATER, B.A., M.B., F.R.C.S., MEDICAL SUPERINTENDENT.

I have the honour to present the nineteenth annual report on the working of the Bradford Municipal General Hospital for the year ended December 31st, 1938.

In this, my last report, I wished to express my gratitude to the Health Committee for the very great amelioration in the living and working conditions of the Nursing Staff, brought about by the provision of the New Nurses' Home, and the modernisation of the kitchen and sanitary arrangements in the Hospital wards.

General comparisons for the past 10 years are shown in the following tables :—

	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929
No. of Admissions	8165	8416	8662	8217	7976	7994	7397	7078	6591	6915
No. of Live Births	1151	1149	1076	1072	1090	1039	923	826	789	702
No. of Operations	3062	3151	3018	2857	2939	2693	2562	2257	2117	2158
Average time spent in Hospital (in days)	... 29·8	31·2	31·2	31·7	31·8	32·08	34·1	34·18	37·2	35·6

The daily average number of in-patients throughout the year was 796. The highest total of in-patients was 882 on February 11th, 1938, and March 11th, 1938. The lowest total of in-patients was 662 on August 21st, 1938.

	Civic.	Public Assistance.	Total
No. of in-patients on Dec. 31st, 1937 ...	639	173	812
No. of admissions during the year ...	7153	1012	8165
No. of Live Births during the year ...	1145	6	1151
			<hr/> 10128
No. of in-patients on Dec. 31st, 1938 ...	542	177	719
No. of Discharges and Deaths during the year	8395	1014	9409
			<hr/> 10128

The admissions were distributed through the wards as follows :—

(The corresponding figures for 1937 are given in brackets.)

		Male.	Female.	Total.
Medical Wards ...	...	1227 (1516)	1301 (1459)	2528 (2975)
Surgical Wards ...	...	1262 (1200)	1994 (1792)	3256 (2992)
Children's Wards	...	472 (452)	381 (491)	853 (943)
Maternity Wards	...		1528 (1506)	1528 (1506)
Live Births	... ..	630 (580)	521 (569)	1151 (1149)
Totals ...		3591 (3748)	5725 (5817)	9316 (9565)

The admissions are shown in greater detail in the accompanying table.

TABLE SHOWING DISTRIBUTION OF ADMISSIONS THROUGH WARDS OF HOSPITAL AND MONTHS OF YEAR.

	Maternity Wards			MEDICAL WARDS										SURGICAL WARDS				Transfers from Ward to	Total Admissions from outside				
	J1	J2	Ad.	Children's Wards					Men					Women						Total admissions into Wards			
				K1	K2	H	A3	B	F1	F2	D2	D3	E1	E2	E3	Men					Women		
																A1	A2				C1	C2	C3
1938																							
January	...	52	53	90	34	2	8	22	16	41	49	28	30	31	73	3	68	51	62	72	828	47	781
February	...	44	54	88	25	20	30	30	13	31	37	21	30	33	50	1	52	44	50	75	778	33	745
March	...	53	64	107	22	34	9	33	16	36	37	18	31	41	82	3	52	60	63	75	898	72	826
April	...	50	58	95	22	24	23	27	26	28	34	32	24	34	70	1	40	51	60	51	795	60	735
May	...	60	58	108	35	15	54	34	29	44	33	25	31	34	111	4	54	76	61	81	1018	126	892
June	...	48	48	89	33	19	29	34	19	29	24	24	36	30	56	4	54	47	66	74	810	47	763
July	...	56	65	98	26	25	27	24	13	28	30	26	36	27	88	4	30	60	45	57	814	71	743
August	...	55	50	90	34	10	17	29	30	27	24	31	20	30	76	5	47	54	60	53	788	59	729
September	...	55	56	105	35	10	34	27	24	24	32	28	27	26	74	4	61	56	50	61	823	56	767
October	...	38	52	99	31	21	27	28	26	32	33	28	26	36	43	5	46	72	59	75	823	52	771
November	...	49	56	94	2	24	49	35	25	40	36	30	26	27	62	4	51	64	73	57	864	40	824
December	...	57	56	98	—	43	21	40	26	26	30	23	29	40	100	5	50	29	47	53	811	71	740
Total admissions to wards	617	670	1151	299	247	328	363	263	386	399	314	346	389	885	43	619	585	664	699	784	10050	734	9316
Total Transfers, ward to ward..	171	192	—	6	7	8	2	83	10	9	5	6	4	122	37	13	9	4	20	26	734	Total Transfers	
	446	478	1151	293	240	320	361	180	376	390	309	340	385	763	6	606	576	660	679	758	9316	Total Admissions from Outside	

TABLE SHOWING DISEASES FROM WHICH PATIENTS HAVE SUFFERED.

DISEASE	Males		Females		Total
	under 16	over 16	under 16	over 16	
ACUTE INFECTIOUS DISEASE:—					
Cerebro-Spinal Meningitis ...	—	4	—	—	4
Chicken Pox ...	1	—	2	—	3
Diphtheria ...	38	1	28	2	69
Dysentery ...	4	1	5	3	13
Encephalitis Lethargica, Chronic ...	—	6	—	3	9
Erysipelas ...	—	1	—	4	5
Measles ...	7	—	7	1	15
Mumps ...	—	—	1	—	1
Pemphigus ...	2	—	1	—	3
Scarlet Fever ...	4	—	3	3	10
Tetanus (Developed Outside) ...	2	1	—	—	3
Whooping Cough ...	3	—	5	—	8
	61	14	52	16	143
INFLUENZA ...	1	6	1	10	18
TUBERCULOSIS:—					
General ...	—	2	—	1	3
Pulmonary ...	1	52	1	34	88
	1	54	1	35	91
Non-Pulmonary:					
Ankle ...	—	1	—	1	2
Fundus Oculi ...	1	—	—	—	1
Hip ...	2	5	3	1	11
Intestines ...	—	—	—	1	1
Kidney ...	—	1	—	1	2
Knee ...	—	—	—	2	2
Lymphatic Glands ...	5	5	3	3	16
Meninges ...	1	1	—	—	2
Metatarsal ...	—	—	2	—	2
Osteoarthritis ...	1	—	—	—	1
Peritoneum ...	1	2	4	3	10
Rib ...	—	1	—	—	1
Spine ...	—	6	3	2	11
	11	22	15	14	62
MALIGNANT DISEASE:—					
Bladder ...	—	3	—	1	4
Breast ...	—	—	—	33	33
Colon ...	—	32	—	16	48
Foot ...	—	1	—	—	1
Humerus ...	—	—	—	1	1
Ilium ...	—	1	—	—	1
Kidney ...	—	1	—	1	2
Larynx ...	—	1	—	—	1
Lip ...	—	1	—	—	1
Liver ...	—	1	—	4	5
Lymphatic Glands ...	—	2	—	2	4
Lungs ...	—	12	—	4	16
Mandible ...	—	3	—	—	3
Mediastinum ...	—	1	—	—	1
Esophagus ...	—	2	—	—	2
Ovary ...	—	—	—	8	8
Pancreas ...	—	1	—	1	2
Penis ...	—	6	—	—	6
Peritoneum ...	—	1	—	—	1
Pharynx ...	—	1	—	1	2
Prostate ...	—	1	—	—	1
Rectum ...	—	13	—	8	21
Vagina ...	—	—	—	2	2
MALIGNANT DISEASE—continued.					
Skin ...	—	4	—	7	11
Skull ...	—	—	—	1	1
Stomach ...	—	33	—	21	54
Testicle ...	—	1	—	—	1
Thigh ...	—	—	—	1	1
Tongue ...	—	10	—	—	11
Uterus ...	—	—	—	70	70
Vulva ...	—	—	—	1	1
	132	—	184	—	316
RHEUMATISM:—					
Articular, Acute ...	7	15	12	13	47
Articular, Subacute ...	—	22	—	18	40
Chorea ...	6	1	11	2	20
	13	38	23	33	107
Non-Articular:—					
Erythema Nodosum ...	1	—	—	1	2
Fibrositis ...	—	5	—	3	8
Lumbago ...	—	5	—	6	11
Muscular ...	—	3	—	2	5
Sciatica ...	—	8	—	10	18
	1	21	—	22	44
Chronic Arthritis ...	—	19	—	29	48
ACCIDENTAL INJURY AND VIOLENCE:—					
Gas Poisoning, Accidental	—	—	—	3	3
Attempted Suicides by:					
Aminonia ...	—	1	—	—	1
Aspirin ...	—	—	—	1	1
Carbolic Acid ...	—	1	—	—	1
Cut Throat ...	—	4	—	1	5
Drowning ...	—	—	—	2	2
Gas ...	—	7	—	9	16
Hydrochloric Acid ...	—	1	—	—	1
Liniment ...	—	—	—	1	1
Lysol ...	—	—	—	2	2
Methylated Spirit ...	—	1	—	—	1
Wounds of Abdomen ...	—	—	—	1	1
Wounds of Wrist ...	—	—	1	—	1
Bruises, Etc. ...	16	25	5	18	64
Burns and Scalds ...	7	6	7	8	28
Cerebral Concussion ...	3	3	1	3	10
Dislocation of:					
Cuneiform Bone ...	—	1	—	—	1
Humerus ...	—	—	—	2	2
Mandible ...	—	1	—	1	2
Semilunar Cartilage (Knee) ...	—	7	—	—	7
Dog Bite ...	1	—	—	1	2
Fracture of:					
Calcaneus ...	—	—	—	1	1
Clavicle ...	—	5	—	1	6
Coccyx ...	—	—	—	1	1
Femur ...	3	9	—	26	38
Fibula ...	1	1	—	3	5
Fibula and Tibia ...	1	7	—	23	31
Humerus ...	1	4	3	9	17
Osteoarthritis ...	—	—	—	3	3
Mandible ...	—	1	—	—	1
Metacarpal ...	1	1	—	1	3
Patella ...	—	—	—	1	1
Pelvis ...	—	1	—	1	2

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*continued.*

DISEASE	Males		Females		Total	DISEASE	Males		Females		Total
	under 16	over 16	under 16	over 16			under 16	over 16	under 16	over 16	
ACCIDENTAL INJURY AND VIOLENCE— <i>cont. l.</i>						NERVOUS SYSTEM AND SENSE ORGANS— <i>con.</i>					
Fracture of:						Meningitis, Acute ...	2	—	—	—	2
Radius and Ulna ...	1	2	1	13	17	Migraine ...	—	—	—	2	2
Ribs... ..	—	6	—	4	10	Nasal Polypi ...	—	—	—	2	2
Scapula ... ..	—	—	—	—	—	Neuralgia ... ..	—	—	—	4	4
Skull ... ..	—	1	—	1	2	Neuralgia, Intercoastal ...	—	1	—	2	3
Spine ... ..	—	3	—	—	3	Neurasthenia ... ..	—	12	—	20	32
Tibia ... ..	5	3	—	2	10	Neuritis—Peripheral... ..	—	8	—	7	15
Separation of Epiphysis (Humerus) ... ..	—	—	1	—	1	Neuroma ... ..	—	1	—	—	1
Sprains of Joints ...	7	5	—	8	20	Paralysis Agitans ... ..	—	5	—	7	12
Ruptured Kidney ...	—	—	—	1	1	Paralysis of Palate (Post-Diphtheric) ...	1	—	—	1	2
Wounds ... ..	8	4	3	3	18	Paralysis, Infantile ...	3	—	1	—	4
	55	112	21	155	343	Paraplegia ... ..	—	4	—	6	10
						Progressive Muscular Atrophy ... ..	—	—	—	1	1
VENEREAL DISEASES:—						Ptoxis, Congenital ... ..	—	—	1	—	1
Gonorrhœa ... ..	—	13	2	8	23	Rhinitis ... ..	—	—	—	1	1
Gonorrhœal Arthritis ...	—	2	—	1	3	Sinusitis, Frontal Aut- rum ... ..	—	—	—	1	1
Gonorrhœal Conjuncti- vitis ... ..	1	—	2	—	3	Spina Bifida ... ..	4	—	—	—	4
Syphilis—Acquired ...	—	1	—	4	5	Stenosis, Lachrymal Duct ... ..	3	—	4	—	7
Syphilis—Congenital... ..	1	—	—	—	1	Strabismus ... ..	14	—	12	1	27
	2	16	4	13	35	Torticollis, Spastic ...	—	1	—	—	1
						Vertigo ... ..	—	5	—	4	9
MENTAL DISEASES:—							53	197	36	226	512
Dementia Præcox ...	—	—	1	—	1	RESPIRATORY SYSTEM:—					
Hypochondriasis ...	—	1	—	3	4	Abscess of Lung ... ..	—	4	—	2	6
Imbecile ... ..	—	1	—	—	1	Bronchial Asthma ... ..	—	15	2	25	42
Mania ... ..	—	1	—	—	1	Bronchiectasis ... ..	—	6	—	2	8
	—	3	1	3	7	Bronchitis, Acute ... ..	1	47	24	32	114
						Bronchitis, Chronic ...	1	105	—	47	157
SENILE DECAY ... ..	—	49	—	62	111	Broncho-Pneumonia ...	20	11	12	9	52
						Coryza ... ..	—	—	—	3	3
NERVOUS SYSTEM AND SENSE ORGANS:—						Empyema ... ..	1	7	—	3	11
Amiotrophic Lateral Sclerosis ... ..	—	1	—	—	1	Hæmoptysis ... ..	—	8	—	4	12
Blepharitis ... ..	1	—	1	—	2	Laryngitis ... ..	—	1	—	1	2
Cataract ... ..	1	6	1	13	21	Pleurisy with Effusion ...	—	5	1	5	11
Cerebral Abscess ... ..	—	1	—	—	1	Pleurisy, Plastic ... ..	1	28	1	14	44
Cerebral Embolism ...	—	3	—	6	9	Pneumonia, Hypostatic ...	—	—	—	3	3
Cerebral Hæmorrhage ...	1	58	—	50	109	Pneumonia, Lobar ... ..	36	96	26	57	195
Cerebral Irritation ...	—	2	—	—	2	Pneumothorax ... ..	—	1	—	—	1
Cerebral Syphilis ... ..	—	2	—	1	3	Silicosis ... ..	—	3	—	—	3
Cerebral Thrombosis... ..	—	23	—	21	44		74	337	66	187	664
Cerebral Tumour ... ..	—	5	—	6	11	CIRCULATORY SYSTEM:					
Conjunctivitis ... ..	3	1	—	2	6	Addison's Disease ... ..	—	1	—	—	1
Convulsions ... ..	3	—	2	—	5	Anæmia, Pernicious ... ..	—	8	—	14	22
Corneal Ulcer ... ..	1	—	—	1	2	Anæmia, Simple ... ..	1	2	3	11	17
Crutch Paralysis ... ..	—	1	—	—	1	Aneurysm-Aortic ... ..	—	1	—	1	2
Deflected Septum Nasi ...	—	2	—	2	4	Arterio-Sclerosis ... ..	—	18	—	10	28
Disseminated Sclerosis ...	—	10	—	5	15	Banti's Disease ... ..	—	1	—	—	1
Epilepsy ... ..	3	11	2	11	27	Gangrene, Diabetic ... ..	—	1	—	2	3
Ectropion ... ..	—	—	1	1	2	Gangrene, Embolic ... ..	—	1	—	1	2
Entropion ... ..	—	—	—	1	1	Gangrene, Senile ... ..	—	11	—	7	18
Friedrich's Ataxia ... ..	—	1	—	1	2	Hæmophilia ... ..	—	3	—	—	3
Facial Paralysis ... ..	—	—	1	2	3	Hodgkins' Disease ... ..	—	1	—	—	1
Glaucoma ... ..	—	—	—	1	1	Hyperplasia ... ..	—	11	—	19	30
G.P.I. ... ..	—	1	—	—	1	Leukæmia ... ..	—	—	—	1	1
Hemiplegia ... ..	1	20	1	32	54	Morbus Cordis ... ..	3	164	9	164	340
Herpes Zoster ... ..	—	3	—	4	7	Phlebitis ... ..	—	4	—	6	10
Huntingdon's Chorea ...	—	—	—	1	1	Purpura Hæmorrhagica ...	1	—	1	1	3
Hysteria ... ..	—	1	1	2	4	Raynaud's Disease ... ..	—	2	—	—	2
Locomotor Ataxy ... ..	—	6	—	—	6	Tachycardia ... ..	—	1	—	—	1
Loss of Memory ... ..	—	1	—	1	2	Varicose Veins ... ..	—	1	—	4	5
Mastoiditis ... ..	12	1	5	2	20		6	230	13	241	49
Meibomian Cyst ... ..	—	—	3	—	3						
Meniere's Disease ... ..	—	—	—	1	1						

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*continued.*

DISEASE	Males		Females		Total	DISEASE	Males		Females		Total
	under 16	over 16	under 16	over 16			under 16	over 16	under 16	over 16	
DIGESTIVE SYSTEM:						GENITO-URINARY SYSTEM—continued.					
Abscess in Mesentery...	—	—	—	1	1	Caruncle, Urethral ...	—	—	—	6	6
Acidosis ...	—	—	1	—	1	Cervical Erosion ...	—	—	—	17	17
Achlorhydria ...	—	1	—	3	4	Cyst, Epididymis ...	—	1	—	—	1
Appendicitis, Acute ...	30	65	23	108	226	Cystitis ...	—	13	—	29	42
Appendicitis, Chronic ...	16	46	16	79	157	Cystocele ...	—	—	—	20	20
Biliary Fistula ...	—	1	—	—	1	Dysmenorrhœa ...	—	—	—	29	29
Cholecystitis ...	—	13	3	54	70	Dyspareunia ...	—	—	—	18	18
Cirrhosis—Liver ...	—	5	—	2	7	Dysuria ...	—	2	—	1	3
Colic—Intestinal ...	5	25	3	21	54	Endometritis ...	—	—	—	27	27
Colitis—Mucous ...	2	2	—	8	12	Enuresis ...	1	—	4	3	8
Colitis—Ulcerative ...	—	1	—	1	2	Extravasation of Urine ...	—	3	—	—	3
Celostomy ...	—	1	—	2	3	Fibroids Uterus ...	—	—	—	32	32
Constipation ...	2	14	—	14	30	Fistula, Urethral ...	—	4	—	—	4
Dental Caries ...	2	5	1	4	12	Foreign Body in Vagina ...	—	—	—	1	1
Diarrhœa ...	1	5	1	7	14	Hæmaturia ...	—	17	—	3	20
Diverticulitis ...	—	2	—	5	7	Hydrocele ...	—	15	—	—	15
Duodenal Ulcer ...	—	106	—	23	129	Hydronephrosis ...	—	—	—	3	3
Duodenal Ulcer—						Hypertrophy Labia ...	—	—	—	2	2
Perforated ...	—	30	—	3	33	Hypospadias ...	1	1	—	—	2
Dyspepsia ...	—	15	—	13	28	Keratosis, Glans Penis ...	—	1	—	—	1
Dysphagia ...	—	2	—	1	3	Leucorrhœa ...	—	—	—	46	46
Enteritis ...	1	6	3	3	13	Menorrhagia ...	—	—	—	51	51
Fissure—Anal ...	—	1	—	9	10	Metrorrhagia ...	—	—	—	48	48
Fistula in Ano ...	—	5	—	9	14	Menopause ...	—	—	—	1	1
Fistula Fæcal ...	—	—	—	1	1	Movable Kidney ...	—	—	—	1	1
Foreign Body in						Nephritis, Acute ...	4	2	—	6	12
Stomach ...	3	—	—	—	3	Nephritis, Chronic ...	—	37	—	26	63
Gall Stones ...	—	10	—	23	33	Orchitis ...	1	9	—	—	10
Gastric Ulcer ...	—	18	—	15	33	Ovarian Cyst ...	—	—	—	33	33
Gastric Ulcer Per-						Ovaritis ...	—	—	—	1	1
forated ...	—	1	—	—	1	Papilloma of Bladder ...	—	4	—	2	6
Gastritis ...	3	18	1	13	35	Parametritis ...	—	—	—	1	1
Gastro-Enteritis ...	10	4	2	1	17	Paraphimosis ...	1	2	—	—	3
Gastropnoia ...	—	1	—	4	5	Pelvic, Cellulitis ...	—	—	—	2	2
Hæmatemesis ...	—	20	—	7	27	Perinephric Abscess ...	1	2	—	2	5
Hæmorrhoids ...	—	41	—	20	61	Periurethral Abscess ...	—	7	—	—	7
Hepatitis—acute ...	—	1	—	—	1	Phimosis ...	66	6	—	—	72
Hicough, Persistent...	—	1	—	—	1	Prolapse of Ovary ...	—	—	—	5	5
Hydatid Cysts Omen-						Prolapse of Uterus ...	—	—	—	61	61
tum ...	—	—	—	1	1	Prostatic Enlargement ...	—	57	—	—	57
Intestinal Obstruction						Pruritis Vulvæ ...	—	—	—	1	1
—Acute ...	—	2	—	3	5	Pyelitis ...	—	—	2	23	25
Intestinal Obstruction,						Pyonephritis ...	—	1	—	1	2
Chronic ...	—	5	—	3	8	Pyosalpinx ...	—	—	—	3	3
Intussusception ...	1	—	1	—	1	Renal Colic ...	—	26	1	14	41
Ischio-Rectal Abscess ...	1	17	—	10	28	Retroverted Uterus ...	—	—	—	25	25
Jaundice, Catarrhal ...	—	4	—	2	6	Ruptured Perineum ...	—	—	—	8	8
Jejunal Ulcer ...	—	1	—	—	1	Salpingitis and Pyosal-					
Marasmus ...	6	—	13	—	19	phinx ...	—	—	—	33	33
Melæna ...	—	1	—	—	1	Scrotal Abscess ...	—	1	—	—	1
Peritonitis—Acute ...	—	—	—	2	2	Sterility ...	—	—	—	22	22
Peritoneal Adhesions ...	—	2	—	8	10	Stone in—					
Prolapse of Rectum ...	1	1	1	1	4	Bladder ...	—	4	—	—	4
Pelvic Stenosis ...	3	1	—	2	6	Kidney ...	—	4	—	4	8
Pylorospasm ...	—	—	1	—	1	Ureter ...	—	1	—	2	3
Polypus Rectum ...	—	—	—	—	—	Stricture of Urethra ...	—	18	—	—	18
Purpura ...	1	—	—	—	1	Undescended Testicle ...	18	5	—	—	23
Stricture, Anus ...	—	3	—	—	3	Urethritis ...	—	1	—	—	1
Stricture, Rectum ...	—	1	—	—	1	Vaginal Cyst ...	—	—	—	1	1
Stomatitis ...	2	1	1	—	4	Varicocele ...	—	1	—	—	1
Tape Worm ...	2	—	—	2	4	Vulvitis ...	—	—	1	4	5
Thread Worms ...	2	—	—	—	2	Wound of Vulva ...	—	—	—	1	1
Ulcer of Tongue ...	—	1	—	—	1						
Viscerotoposis ...	—	1	—	6	7						
	94	507	72	494	1167		93	246	9	633	981
GENITO-URINARY SYSTEM:						SKIN:					
Amenorrhœa ...	—	—	—	1	1	Alopecia Areata ...	—	—	3	—	3
Bacilluria ...	—	—	—	—	—	Bed Sores ...	—	—	—	1	1
Balanitis ...	—	—	1	1	2	Boils ...	4	8	1	4	17
Bartholin' Cyst ...	—	1	—	—	1	Carbuncle ...	—	7	—	2	9
	—	—	—	12	12	Dermatitis, Acute ...	—	3	—	—	3
						Dermatitis, Chronic ...	—	16	—	7	23

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*continued.*

DISEASE	Males		Females		Total	DISEASE	Males		Females		Total
	under 16	over 16	under 16	over 16			under 16	over 16	under 16	over 16	
SKIN—continued.						MISCELLANEOUS—contd.					
Dermoid Cyst...	—	1	1	—	2	Frost Bite ...	1	—	—	—	1
Eczema ...	5	13	4	5	27	Ganglion ...	3	2	—	2	7
Ichthyosis ...	2	—	—	—	2	Genu Valgum...	4	—	1	1	6
Impetigo ...	18	5	17	2	42	Genu Varum ...	—	—	1	—	1
Keloid ...	—	1	1	1	3	Goitre ...	—	1	—	10	11
Nævus ...	2	—	1	—	3	Hæmorrhage after Dental Extraction ...	—	1	—	—	1
Oncychia ...	—	2	—	3	5	Hallux Valgus ...	—	1	—	9	10
Papillomata ...	1	—	—	—	1	Hammer Toe ...	1	4	1	8	14
Paget's Disease of Nipple ...	—	—	—	2	2	Hare Lip ...	1	—	—	—	1
Pediculosis ...	—	2	—	1	3	Hernia—	—	—	—	—	—
Perforating Ulcer, Foot ...	—	2	—	—	2	Diaphragmatic ...	—	—	—	1	1
Psoriasis ...	—	5	—	2	7	Femoral ...	—	4	—	10	14
Pruritis Ani ...	—	1	—	2	3	Inguinal ...	13	84	4	7	108
Ringworm ...	3	—	2	—	5	Umbilical ...	4	2	5	—	11
Scabies ...	9	6	4	8	27	Ventral ...	1	5	—	8	14
Sebaceous Cyst ...	—	4	—	3	7	Hernia Strangulated—					
Seborrhœa ...	—	1	—	—	1	Femoral ...	—	1	—	10	11
Sycosis ...	—	2	—	—	2	Inguinal ...	—	14	—	—	14
Ulcer of Leg ...	—	21	—	30	51	Umbilical ...	—	—	1	1	1
Ulcer of Leg, Umbilicus ...	—	—	—	1	1	Ventral ...	—	1	—	3	4
Urticaria ...	—	—	2	—	2	Hyperplasia, Breast ...	—	—	—	2	2
	44	100	36	74	254	Hyperthyroidism ...	—	—	1	1	1
MISCELLANEOUS:						Hypertrophy Uvula ...	1	—	—	—	1
Abscesses ...	7	18	7	15	47	Hypoglycæmia ...	—	—	—	1	1
Adenitis, Simple ...	4	2	14	1	21	Hypothyroidism ...	—	1	—	—	1
Adenitis, Suppurating ...	14	8	11	1	34	Kyphosis ...	—	1	—	—	1
Adenoids and Tonsils ...	65	2	76	9	152	Lipoma ...	—	7	—	2	9
Adenoma of Breast ...	—	—	—	20	20	Malingerer ...	—	1	—	—	1
Adenoma of Thyroid ...	—	—	—	5	5	Mastitis—acute ...	—	—	1	—	1
Alcoholism ...	—	10	—	3	13	Mastitis—chronic ...	—	—	—	6	6
Anaphylaxis ...	—	—	—	1	1	Milroy's Disease ...	—	—	—	2	2
Ankylosis of Joints ...	1	—	—	—	1	Morphine Addict ...	—	—	—	1	1
Arthritis, Acute ...	—	1	—	—	1	Mucocœle ...	—	1	—	—	1
Baker's Cyst of Knee ...	1	—	—	1	2	Myxœdema ...	—	—	—	3	3
Bursitis ...	—	1	—	1	2	Obesity ...	—	—	—	2	2
Bursitis, Suppurating ...	—	—	1	3	4	Osteoma ...	—	4	—	1	5
Cellulitis ...	7	38	4	21	70	Osteomyelitis, acute... 2	2	—	2	—	4
Congenital Dislocation, Hip ...	—	—	2	—	2	Osteomyelitis, chronic 3	3	—	2	—	5
Cleft Palate ...	2	—	2	3	7	Paget's Disease of Bone ...	—	1	—	3	4
Cyst of Neck ...	1	4	—	2	7	Painful Scar ...	—	1	—	1	2
Cyst, Sacrococcygeal... 3	—	—	—	3	3	Parotitis ...	—	1	—	1	2
Debility ...	1	27	2	27	57	Perthe's Disease ...	1	—	1	—	2
Deformity of Arm ...	—	—	1	—	1	Prematurity ...	3	—	1	—	4
Diabetes Mellitus ...	4	23	1	42	70	Rickets ...	5	—	6	—	11
Dupuytren's Contraction ...	—	1	—	1	2	Scoliosis ...	—	1	—	1	2
Elephantiasis ...	—	—	—	1	1	Septicæmia ...	—	1	—	2	3
Epistaxis ...	1	1	—	2	4	Spondylitis Deformans ...	—	1	—	—	1
Exophthalmic Goitre ...	—	—	—	2	2	Still's Disease... 2	—	—	2	—	2
Exostosis ...	—	—	—	2	2	Supernumerary Digit 3	3	—	—	—	3
Fibromata ...	—	—	—	1	1	Synovitis ...	—	2	—	1	3
Foreign Body in: Leg ...	1	—	—	1	2	Talipes Valgus ...	1	2	—	—	3
						Talipes Varus... 1	—	1	3	1	5
						Tenosynovitis ...	—	—	—	1	1
						Tonsillitis ...	2	4	1	33	40
						Torticollis ...	—	—	2	—	2
							158	289	152	305	904

## DISEASES &amp; ACCIDENTS CONNECTED WITH PREGNANCY &amp; CHILD-BIRTH.

Abortion ... ..	236	Morbus Cordis ... ..	6
Albuminuria ... ..	62	Edema of Legs, Etc. ... ..	22
Ante Partum Hemorrhage ... ..	17	Puerperal Pyrexia—developed in hospital ... ..	23
Bronchitis, Acute ... ..	6	Puerperal Pyrexia—developed outside ... ..	20
Chorea ... ..	1	Puerperal Fever—developed in hospital ... ..	1
Contracted Pelvis and Disproportion ... ..	51	Puerperal Fever—developed outside ... ..	2
Cystitis ... ..	1	Ovarian Cyst ... ..	1
Debility ... ..	8	Pulmonary Tuberculosis ... ..	2
Diabetes ... ..	3	Pvclitis ... ..	4
Ectopic Gestation ... ..	7	Renal Calculus ... ..	1
Eclampsia ... ..	1	Retained Placenta ... ..	3
Eczema ... ..	1	Retroverted Uterus—Gravid ... ..	1
Epilepsy ... ..	1	Syphilis ... ..	1
Hydran nios ... ..	6	Toxæmia ... ..	21
Hyperemesis ... ..	20	Varicose Veins ... ..	8
Leucorrhœa ... ..	1		
Mastitis—Acute ... ..	21		
Miscarriage ... ..	18		
Miscarriage, threatened ... ..	5		
			582

## SURGICAL DEPARTMENT.

The number of operations performed during 1938 was 3,062, as compared with 3151 last year. The operation death-rate was 2.8 per cent. as against 3.5 per cent. in 1937.

The various forms of anæsthesia employed, and the number of operations performed under each, are shown in the following table:—

	Laparotomies	Other Operations	Total
Spinal—Stovain, Spinocaine or Spinæsthetic	139	112	251
Spinal—Avertin ... ..	6	5	11
Avertin—Open Ether ... ..	223	181	404
Avertin—Gas and Oxygen ... ..	82	64	146
Avertin—Local ... ..	31	22	53
Rectal Ether ... ..	—	9	9
Evipan—intravenous ... ..	3	27	30
Evipan—Ether ... ..	—	8	8
Local Infiltration—Novocaine and Cocaine ...	17	403	420
General—Ether, Chloroform, Gas ... ..	348	1382	1730
Totals ... ..	849	2,213	3,062

Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
<b>LAPAROTOMIES:</b>			<b>APPENDIX:</b>		
Exploratory ... ..	15	4	Appendicectomy, Acute... ..	210	9
For Intestinal Adhesions ... ..	7	—	Appendix Abscess—Drained ... ..	2	1
For Lumbar Ganglionectomy ... ..	2	1	Appendicectomy, Chronic ... ..	223	—
For Penetrating Wound ... ..	1	—			
For Pelvic Abscess ... ..	1	1	<b>SMALL INTESTINES:</b>		
For Peritoneal Hæmorrhage, Traumatic	1	—	Closure of Ileostomy ... ..	1	—
For Retro-Peritoneal Abscess ... ..	1	—	For acute obstruction by Adhesions or Bands ... ..	2	1
For General Peritonitis... ..	2	—	For acute obstruction, Intussusception	1	1
For Tuberculous Peritonitis ... ..	3	1	Jejunostomy for Gastric Ulcer... ..	1	—
For Splenectomy ... ..	—	1	Ileo-Colostomy ... ..	2	—
<b>HERNIAS:</b>			<b>LIVER:</b>		
For Strangulated Umbilical Hernia ...	—	1	Cholecystectomy ... ..	19	1
For Strangulated Ventral Hernia ...	4	1	Cholecystotomy ... ..	17	1
Radical Cure—Umbilical ... ..	12	—			
Radical Cure—Ventral ... ..	9	—	<b>UTERUS AND APPENDAGES:</b>		
<b>STOMACH:</b>			<i>Cæsarian Section for—</i>		
Gastrectomy, for Gastric Ulcer ...	13	1	Contracted Pelvis ... ..	35	—
Gastrectomy, for Cancer (Gastric) ...	1	—	Fibroid ... ..	2	—
Gastrojejunostomy Posterior for Duodenal Ulcer ... ..	14	3	Ante-Partum Hæmorrhage ... ..	3	—
Gastrojejunostomy, Posterior, for Gastric Ulcer ... ..	1	—	Morbus Cordis... ..	3	—
Gastrojejunostomy Posterior for Cancer ... ..	2	—	Pulmonary Tuberculosis (advanced)... ..	—	1
Ramsted's Operation ... ..	3	—	Eclampsia ... ..	1	—
For Perforation of Duodenal Ulcer ...	25	3	Placenta Prævia ... ..	4	—
For Perforation of Gastric Ulcer ...	1	—	Post Maturity ... ..	1	—
For Perforation of Jejunal Ulcer ...	1	—	For Cancer, Ovary ... ..	2	—
For Gastrocolic Fistula ... ..	1	—	Hysterectomy—Total ... ..	8	—
<b>LARGE INTESTINES:</b>			Hysterectomy—Sub-Total ... ..	27	1
Cæcostomy ... ..	4	—	Hysterotomy ... ..	6	—
Colostomy ... ..	18	4	Myomectomy ... ..	3	—
Resection, Carcinoma Coli ... ..	5	4	Oophorectomy and Salpingectomy ...	31	1
Ruptured Cæcum ... ..	1	—			

SURGICAL DEPARTMENT—*continued.*

Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
<b>UTERUS AND APPENDAGES—<i>continued.</i></b>			<b>GENITO-URINARY—<i>continued.</i></b>		
Ovariectomy ... ..	17	—	Urethral Fistula ... ..	1	—
Ruptured Ectopic Gestation ... ..	4	1	Urethral Stricture—Dilatation ... ..	28	2
Ventrofixation of Uterus ... ..	25	—	Vaginal Ulcer ... ..	3	—
For Ruptured Uterus ... ..	2	—	Vesico-vaginal Fistula ... ..	1	—
<b>TOTAL LAPAROTOMIES</b> ... ..	<b>806</b>	<b>43</b>	<b>TOTAL GENITO-URINARY</b> ... ..	<b>962</b>	<b>14</b>
<b>HERNIOTOMIES:</b>			<b>RECTUM:</b>		
For Strangulated Femoral Hernia ... ..	10	2	Kraske's Resection ... ..	3	—
For Strangulated Inguinal Hernia ... ..	8	2	Sigmoidoscopy ... ..	19	—
Radical Cure—Femoral Hernia ... ..	17	—	For Carcinoma—Radon ... ..	2	—
Radical Cure—Inguinal Hernia ... ..	108	1	For Fissure ... ..	14	—
<b>TOTAL HERNIOTOMIES</b> ... ..	<b>143</b>	<b>5</b>	For Fistula ... ..	11	—
<b>GENITO-URINARY:</b>			For Ischio-Rectal Abscess ... ..	20	1
Amputation of Penis ... ..	1	—	For Piles ... ..	45	1
Amputation of Cervix Uteri ... ..	5	—	For Prolapse ... ..	2	—
Circumcision ... ..	83	—	For Stricture ... ..	4	—
Colporrhaphy ... ..	13	—	<b>TOTAL RECTUM</b> ... ..	<b>111</b>	<b>2</b>
Colpotomy, Pelvic Abscess ... ..	1	—	<b>NOSE, THROAT, AND CHEST:</b>		
Craniotomy ... ..	1	—	Artificial Pneumothorax ... ..	1	—
Curettage ... ..	209	—	Bronchoscopy ... ..	6	—
Cystoscopy, Urethral Catheterisation ... ..	75	1	Lobectomy (Bronchiectasis) ... ..	1	—
Cystotomy, Supra Pubic ... ..	18	4	Mastoidectomy—Radical ... ..	6	—
Dilatation, Cervix ... ..	2	—	Mastoidectomy—Conservative ... ..	3	—
Division, Cruro-Genital Nerve ... ..	1	—	Resection—Septum Nasi ... ..	4	—
Episiotomy ... ..	1	—	Thoracoplasty ... ..	5	—
Forceps Delivery ... ..	39	—	Thyroidectomy ... ..	5	4
Forbergill's Operation ... ..	1	—	Turbinals, cauterised ... ..	5	1
Hymenectomy ... ..	3	—	Turbineotomy ... ..	1	—
Hysterectomy, vaginal ... ..	1	—	For Carcinoma—Tongue—Radon ... ..	6	—
Induction of Premature Labour ... ..	13	—	For Carcinoma—Lip—Radon ... ..	1	—
Lithotomy, Supra Pubic ... ..	3	—	For Empyema—Chest Drainage, etc. ... ..	16	3
Nephrectomy ... ..	8	—	For Empyema—Maxillary Antrum ... ..	1	—
Nephrolithotomy ... ..	4	—	For Cleft Palate ... ..	1	—
Orchidectomy ... ..	2	—	For Hare Lip ... ..	5	—
Pelvic Examination ... ..	10	—	For Hypertrophy Uvula ... ..	1	—
Perinorrhaphy ... ..	64	—	For Nasal Polypi ... ..	3	—
Plastic on Urethra ... ..	1	—	For Tongue-tie ... ..	1	—
Podalic Version ... ..	18	—	For Torticollis ... ..	2	—
Prostatectomy, Supra Pubic ... ..	11	2	For Tonsils and Adenoids ... ..	175	—
Radical Cure—Hydrocele ... ..	15	—	For Ulcer of Tongue ... ..	1	—
Radical Cure—Varicocele ... ..	2	—	<b>TOTALS NOSE, THROAT AND CHEST</b> ... ..	<b>250</b>	<b>8</b>
Resection of Carcinoma, Bladder ... ..	1	—	<b>EYES:</b>		
Steinach's Operation ... ..	4	1	Iridectomy ... ..	9	—
Vasotomy ... ..	1	—	For Cataract ... ..	15	—
For Abscess—Penis ... ..	3	—	For Corneal Ulcer ... ..	2	—
For Bartholin's Cyst ... ..	9	—	For Ectropion ... ..	7	—
For Carcinoma Bladder, Diathermy ... ..	1	—	For Meibomian Cyst ... ..	7	—
For Carcinoma of Cervix Uteri—radium ... ..	52	—	For Ptosis ... ..	1	—
For Carcinoma Penis—Radon ... ..	2	—	For Stenosis Lachrymal Ducts ... ..	8	—
For Cervical Erosion ... ..	17	—	For Squint ... ..	28	—
For Cervical Polypus ... ..	11	—	<b>TOTAL—EYES</b> ... ..	<b>77</b>	<b>0</b>
For Cyst of Epididymis ... ..	1	—	<b>AMPUTATIONS:</b>		
For Epithelioma Penis—excision ... ..	1	—	Breast Cancer ... ..	15	—
For Extravasation of Urine ... ..	2	1	Finger ... ..	5	—
For Hypospadias ... ..	2	—	Leg ... ..	4	3
For Incarcerated Gravid Uterus ... ..	1	—	Thigh ... ..	2	—
For Lacerated Scrotum ... ..	1	—	Thumb ... ..	1	—
For Paraphimosis ... ..	2	—	Toe ... ..	6	—
For Papilloma—vesical ... ..	8	1	<b>TOTAL AMPUTATIONS</b> ... ..	<b>33</b>	<b>3</b>
For Papilloma—vulval ... ..	2	—			
Perineal Abscess ... ..	6	—			
Perinephric Abscess ... ..	4	—			
Polypus—Cervix ... ..	1	—			
Prostatic Abscess ... ..	1	—			
Retained Products of Conception ... ..	160	2			
Retroverted Gravid Uterus ... ..	2	—			
Stenosis, Vagina ... ..	2	—			
Undescended Testicle ... ..	19	—			
Urethral Caruncle ... ..	6	—			
Urethral Calculus ... ..	2	—			

SURGICAL DEPARTMENT—*continued.*

Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
<b>EXCISIONS:</b>			<b>BONES AND JOINTS—<i>continued.</i></b>		
Adenoma—Breast ... ..	21	—	Trephining, Gasserian Ganglion ... ..	2	—
Adenoma—Thyroid ... ..	2	—	For Arthritis, Acute ... ..	1	—
Branchial Cyst ... ..	2	—	For Baker's Cyst of Knee ... ..	1	—
Bursa ... ..	3	—	For Hammer Toe ... ..	11	—
Callosities, Foot ... ..	1	—	For Hallux Valgus ... ..	11	—
Carcinoma—Breast ... ..	8	—	For Osteomyelitis, Acute ... ..	4	—
Chronic Ulcer, Leg ... ..	1	—	For Pes Cavus ... ..	1	—
Cyst of Neck ... ..	1	—	For Still's Disease ... ..	1	—
Cyst of Lip ... ..	1	—	For Talipes ... ..	3	—
Dermoid of Skin ... ..	4	—	For Tuberculous Hip ... ..	1	—
Epithelioma Eyelid ... ..	1	—	For Tuberculous Ankle ... ..	1	—
Epithelioma Skin ... ..	1	—	For Tuberculous Spine ... ..	5	—
Epulis ... ..	2	—			
Fibroma ... ..	1	—	<b>TOTALS BONES AND JOINTS ...</b>		
Foreign Bodies ... ..	2	—		125	4
Ganglion ... ..	6	—	<b>MISCELLANEOUS:</b>		
Glands, Lymphatic, Malignant ... ..	3	—	Abscesses ... ..	62	—
Glands, Lymphatic ... ..	—	—	Avulsion of Nail ... ..	7	—
Hodgkin's Disease ... ..	1	—	Blood Transfusion ... ..	11	—
Glands, Lymphatic, Tuberculous ... ..	14	—	Carbuncle ... ..	5	—
Keloid ... ..	1	—	Cellulitis ... ..	20	1
Lipoma ... ..	11	—	Closure of Colostomy ... ..	2	1
Nævus ... ..	4	—	Dental Extractions ... ..	73	—
Neuroma ... ..	1	—	Extensive Burns ... ..	1	—
Nipple, Paget's Disease ... ..	1	—	Ganglionectomy, Cervical ... ..	4	2
Papilloma ... ..	9	—	Gumma, Buttock ... ..	1	—
Parotid Tumour ... ..	1	—	Injection of Alcohol—cervical Ganglia ... ..	1	—
Prepatellar Bursa ... ..	2	—	Injection of Alcohol—Lumbar Ganglia ... ..	7	2
Rhinophima ... ..	1	—	Injection of Alcoeol—Infraorbital Nerve ... ..	2	—
Rodent Ulcer ... ..	1	—	Injection of Alcohol—Inthrathelal ... ..	2	—
Sacrococcygeal Cyst ... ..	3	—	Ligature—Lingual Artery ... ..	1	—
Sarcoma, Foot ... ..	—	1	Ligature—Femoral Artery ... ..	1	—
Thyroglossal Cyst ... ..	1	—	Lupus, Face ... ..	1	—
Ulcer of Neck ... ..	1	—	Mammary Abscess ... ..	32	—
Scar ... ..	8	—	Lumbar Puncture ... ..	1	—
Sebaceous Cyst ... ..	14	—	Nævus, CO2 ... ..	1	—
<b>TOTAL EXCISIONS ...</b>	<b>137</b>	<b>1</b>	Parotid Abscess ... ..	3	—
<b>BONES AND JOINTS:</b>			Painful Dressings ... ..	1	—
Aspiration, Knee Joint ... ..	1	—	Plastic Operation on Tendo-Achilles ... ..	1	—
Exploration, Knee ... ..	1	—	Secondary Suture of Wounds ... ..	40	—
Forcible Movements of Joints ... ..	10	—	Transposition, Ulna Nerve ... ..	2	—
Osteoclasty ... ..	5	—	For Biliary Fistula ... ..	1	—
Osteotomy ... ..	4	—	For Burns Extensive ... ..	3	—
Pegging, Plating and Wiring Fractures ... ..	7	—	For Dupuytren's Contraction ... ..	1	—
Reduction of Fractures ... ..	31	—	For Facial Paralysis ... ..	2	—
Reduction of Dislocation of Hip (Congenital) ... ..	3	—	For Foreign Body in Tissues ... ..	4	—
Reduction of Dislocation of Elbow ... ..	1	—	For Sciatic Stretching ... ..	2	—
Reduction of Dislocation of Mandible ... ..	1	—	For Sciatica, Caudal Injection ... ..	1	—
Reduction of Cuneiform ... ..	1	—	For Scar, Plastic ... ..	1	—
Reduction of Shoulder ... ..	1	—	For Sinus ... ..	1	—
Reduction of Phalanx ... ..	1	—	For Skin Graft ... ..	4	—
Resection, Exostosis, Os calcis ... ..	2	—	For Spasmodic Torticollis ... ..	3	—
Resection, Exostosis, Spine ... ..	1	—	For Tendon Suture ... ..	1	—
Resection, Exostosis, Metatarsal ... ..	1	—	For Tendon, Transplantation ... ..	2	—
Resection, Exostosis, Femur ... ..	1	—	For Tenotomy ... ..	8	—
Resection, Osteoma Mandible ... ..	1	—	For Varicose Veins—Injection ... ..	13	—
Resection, Frontal Bone ... ..	1	—	Varicose Veins—Trendelenberg ... ..	7	—
Resection, Semilunar Cartilage of Knee ... ..	5	—			
Sequestromy ... ..	2	—	<b>TOTAL MISCELLANEOUS ...</b>	<b>336</b>	<b>6</b>
Trephining, Decompression ... ..	2	2	<b>TOTAL OPERATIONS ...</b>	<b>2976</b>	<b>86</b>
					3062

## MATERNITY DEPARTMENT.

The attendances at the Ante-Natal Clinic numbered :—

New Patients	...	...	...	...	...	1364
Others	...	...	...	...	...	6203
						<hr/>
						7567
						<hr/>

Maternity cases admitted during the year numbered 1,523.

The number of live births was 1,151, of stillbirths 99.

The proportion of stillbirths was 8·6%, as compared with 6·8% of the preceding year.

There were 10 maternal deaths, but 5 of these were of patients who died before admission to Hospital.

Cæsarian Section was performed on 50 occasions for the following conditions :—

Contracted Pelvis	...	...	...	...	...	35
Placenta Prævia—A.P.H.	...	...	...	...	...	7
Uterine Fibroids	...	...	...	...	...	2
Heart Disease—advanced	...	...	...	...	...	3
Pulmonary Tuberculosis—advanced	...	...	...	...	...	1
Eclampsia	...	...	...	...	...	1
Post Maturity	...	...	...	...	...	1
						<hr/>
						50
						<hr/>

## ABNORMALITIES IN LABOUR:

Cause.	Number
<b>Perineal Laceration—</b>	
Episiotomy ... ..	7
Forceps ... ..	14
Spontaneous ... ..	52
<b>Contracted Pelvis and Disproportion—</b>	
Cæsarian Section ... ..	35
Craniotomy ... ..	1
Induction of Premature Labour ... ..	10
Perforation, After coming Head ... ..	1
Hydramnios ... ..	12
Prolapse of Cord ... ..	2
Retained Placenta ... ..	8
<b>Forceps Cases—</b>	
Brow Presentation ... ..	1
Fœtal Distress ... ..	11
Fœtal and Maternal Distress ... ..	3
Eclampsia ... ..	2
Occipito-Posterior Presentation (Persistent) ... ..	9
Prolonged Second Stage ... ..	7
Post Maturity and Uterine Inertia... ..	2

## ABNORMALITIES OF MOTHER:

Large Uterine Fibroids... ..	3
------------------------------	---

## ABNORMAL PRESENTATIONS:

Breech ... ..	10
Brow ... ..	1
Prolapse of Cord ... ..	2
Footling ... ..	1
Knee ... ..	1
Shoulder ... ..	1
Transverse ... ..	2

## DISEASES OF MOTHER:

Anæmia, profound ... ..	1
Bacilluria ... ..	1
Bronchitis, Acute ... ..	3
Bronchial Asthma ... ..	2
Bronchiectasis ... ..	1
Carcinoma of Larynx ... ..	1
Catarrhal Jaundice ... ..	2
Diabetes ... ..	4
Epilepsy ... ..	1
Epilepsy and Hemiplegia ... ..	1
Gall Stones ... ..	1
Hydronephrosis ... ..	1
Mania ... ..	2
Morbus Cordis ... ..	20
Nephritis, Chronic ... ..	3
Phlebitis ... ..	2
Pyelitis ... ..	4
Pulmonary Tuberculosis ... ..	5
Rheumatic Endocarditis ... ..	1
Tachycardia ... ..	1
Tonsillitis ... ..	1
Varicose Ulcers ... ..	1
Syphilis ... ..	18

## TOXÆMIAS:

Albuminuria ... ..	62
Eclampsia ... ..	4
Hyperæmesis ... ..	20
Pyelitis ... ..	4

## HÆMORRHAGE:

Accidental ... ..	17
Placenta Prævia ... ..	15

## INDUCTION OF PREMATURE LABOUR:

Carcinoma of Larynx ... ..	1
Disproportion ... ..	9
Eclampsia ... ..	1
Hydramnios ... ..	2
Jaundice ... ..	1
Monster ... ..	3
Pulmonary Tuberculosis ... ..	1
Toxæmia... ..	14

## CASES OF PUERPERAL SEPSIS:

Bacillus Coli Infection ... ..	1
Mastitis ... ..	2
Parametritis ... ..	1
Sapræmia (Mild) ... ..	16

## Cause.

## Number

## CASES OF CONJUNCTIVITIS:

Mild Cases—Cured ... ..	16
G.C.—Cured ... ..	1

## INFANTS NOT ENTIRELY BREAST FED:

Deficient Lactation ... ..	22
Advanced Pulmonary Tuberculosis ... ..	2
Hydrocephalus and Spina Bifida ... ..	1
Death of Mother ... ..	1
Cracked Nipples... ..	2
Operation on Mother (Gall Stones) ... ..	1
Breast Abscesses—Ante-natal ... ..	1
Deformity of Infant ... ..	1
Adoption of Child ... ..	1

## MATERNAL DEATHS:

Eclampsia—Post partum ... ..	Delivered in Hospital	1
Epilepsy — Cerebral Hæ- morrhage ... ..		1
Cæsarian Section — Ad- vanced Pulmonary Tuber- culosis ... ..		1
Toxæmia — Cerebral Hæ- morrhage ... ..	Admitted after Delivery	1
Toxæmia — Pulmonary Embolus ... ..		1
Retained Placenta—P.P.H. ... ..		2
Failed Forceps—Shock... ..		2
Failed Forceps—Laceration Vaginal Vault... ..		1

## STILL-BIRTHS:

Accidental Hæmorrhage ... ..	11
Anencephalus ... ..	8
Hydrocephalus ... ..	15
Asphyxia Pallida ... ..	1
Craniotomy ... ..	2
Diabetes—Mother ... ..	1
Eclampsia ... ..	1
Breech Presentation—Complicated ... ..	9
Placenta Prævia ... ..	8
Prematurity—8 macerated ... ..	27
Post-Maturity ... ..	1
Prolonged Labour—Forceps ... ..	3
Persistent Occipito—Posterior ... ..	1
Proapsed Cord ... ..	2
Transverse Presentation ... ..	1
Intra-cranial Injury (Forceps)... ..	1
Toxæmia—Mother ... ..	7

## DEATHS OF INFANTS WITHIN 10 DAYS OF BIRTH:

Prematurity ... ..	31
Intra-cranial Injuries ... ..	5
Asphyxia Pallida ... ..	1
Melena ... ..	1
Congenital Heart Defect ... ..	1
Necrosis of Liver, etc. ... ..	1
Thymus Enlargement ... ..	1
Spina Bifida ... ..	1

## CASES OF CONGENITAL DEFORMITY:

Anencephalus ... ..	8
Hydrocephalus ... ..	15
Congenital Heart ... ..	1
Enlarged Thymus ... ..	1
Spina Bifida ... ..	4
Talipes ... ..	1
Hare Lip ... ..	1
Supernumerary Thumb ... ..	1

## CASES OF BIRTH INJURY:

Fractured Humerus ... ..	1
Bruised Arm Muscles ... ..	5
Cephalhæmatoma ... ..	1
Laceration Face (Forceps) ... ..	5
Intra-cranial Hæmorrhage ... ..	5
Facial Paralysis ... ..	

## RADIOLOGICAL DEPARTMENT.

During 1938 the following examinations and treatments were effected:— (1937 figures are given in brackets.)

	1938	1937
Radiological Examinations ... ..	4710	(5079)
Treatments by:—		
Deep X-Rays ... ..	643	(335)
Superficial X-Rays ... ..	121	(93)
General and Local Ultra-Violet Rays ... ..	9263	(8147)
Clinical Attendances ... ..	881	(823)
Dressings for Out-Patients ... ..	420	(724)
Films Used ... ..	9926	(10853)

## RADIUM DEPARTMENT.

	1938	1937
Patients admitted ... ..	102	(88)
Out-Patient Attendances ... ..	261	(229)
New Patients ... ..	79	(53)
Number of Radon Seeds made ... ..	635	(848)
Total Radon used ... ..	2599mcs.	(6372mcs.)

During 1938 the number of new patients and the number of patients admitted to hospital show an increase over the 1937 applications and admissions. The marked fall in the amount of Radium emanation used may be attributed to two factors. In the first place the Bradford Radium Centre has received on loan from the National Radium Commission 2·5 grams of Radium during the past twelve months. Part of this Radium is contained in apparatus designed for the treatment of diseases of the uterus hitherto treated in many instances with emanation filled tubes. Furthermore, whereas in previous years many cases of malignant disease in the mouth and pharynx were treated by the implanting of Radon "Seeds," the greater proportion are now radiated by means of the Radium Beam Unit.

## DEATHS.

There have been 1,124 deaths in hospital during the year as compared with 1,195 in 1937. The relation between the ages of patients and the number of deaths is shown in the sub-joined table:—

Years of age	- 1	1 -	2 -	10 -	16 -	20 -	30 -	40 -	50 -	60 -	70 -	80 -	90 -
Number of Deaths	71	2	9	8	10	32	53	66	161	336	276	95	5

## THE CAUSES OF DEATH AT ALL AGES HAVE BEEN:—

	Under 16 years	Over 16 years	Total		Under 16 years	Over 16 years	Total
Abortion, Criminal ...	0	2	2	Gastro-Enteritis ...	2	0	2
Alcoholic Poisoning ...	0	2	2	Hæmorrhage of the Newly Born ...	1	0	1
Amiotrophic Lateral Sclerosis ...	0	1	1	Hemiplegia ...	0	1	1
Anæmia, Aplastic ...	0	1	1	Hernia, Diaphragmatic ...	0	1	1
Anæmia, Pernicious ...	0	1	1	Huntingdon's Chorea ...	0	1	1
Anencephaly ...	1	0	1	Hydrocephalus ...	3	0	3
Aneurysm, Aorta ...	0	2	2	Hyperemesis Gravidarum ...	0	1	1
Appendicitis, Acute ...	0	9	9	Hyperthyroidism ...	0	1	1
Arterio-Sclerosis ...	0	97	97	Influenza ...	0	1	1
Asphyxia Neonatorum ...	1	0	1	Intestinal Obstruction ...	0	4	4
Atelectasis ...	1	0	1	Intestinal Obstruction, Intussus-			
Banti's Disease ...	0	1	1	ception ...	1	0	1
Birth Injuries ...	3	0	3	Intra-cranial Hæmorrhage ...	1	0	1
Bronchiectasis ...	1	5	6	Locomotor Ataxy ...	0	1	1
Bronchitis, Acute ...	1	9	10	Malignant Disease of:			
Bronchitis, Chronic ...	0	53	53	Bladder ...	0	3	3
Bronchial Asthma ...	0	4	4	Breast ...	0	14	14
Broncho-Pneumonia ...	11	17	28	Colon ...	0	28	28
Bruises, Multiple ...	0	4	4	Femur ...	0	1	1
Burns ...	0	1	1	Gall Bladder ...	0	2	2
Cerebral Abscess ...	0	2	2	Ilium ...	0	1	1
Cerebral Embolism ...	0	1	1	Liver ...	0	3	3
Cerebral Thrombosis ...	0	25	25	Lungs ...	0	16	16
Cerebral Hæmorrhage ...	3	103	106	Lymphatic Glands ...	0	1	1
Cerebral Syphilis ...	0	2	2	Mandible ...	0	1	1
Cerebral Tumour ...	1	5	6	Maxilla ...	0	1	1
Cholecystitis ...	0	4	4	Mediastinum ...	0	2	2
Cirrhosis of Liver ...	0	3	3	Metatarsus ...	0	1	1
Colitis, Ulcerative ...	0	1	1	Oesophagus ...	0	2	2
Cut-Throat ...	0	2	2	Ovary ...	0	1	1
Cystitis ...	0	1	1	Pancreas ...	0	5	5
Diabetes Mellitus ...	0	9	9	Parotid ...	0	1	1
Disseminated Sclerosis ...	0	2	2	Peritoneum ...	0	1	1
Duodenal Ulcer ...	0	3	3	Prostate ...	0	1	1
Duodenal Ulcer, Hæmorrhage ...	0	5	5	Rectum ...	0	16	16
Duodenal Ulcer, Perforated ...	0	4	4	Skin ...	0	3	3
Eclampsia, Puerperal ...	0	1	1	Stomach ...	0	22	22
Empyema ...	2	3	5	Tongue ...	0	4	4
Encephalitis Lethargica ...	0	2	2	Uterus ...	0	20	20
Endometritis, Chronic ...	0	1	1	Vulva ...	0	3	3
Epilepsy ...	0	1	1	Marasmus ...	1	0	1
Erysipelas ...	0	2	2	Meningitis, Acute ...	0	1	1
Exophthalmic Goitre ...	0	4	4	Meningitis, Pneumococcal ...	0	1	1
Fracture of:				Miscarriage ...	0	1	1
Clavicle ...	0	1	1	Morbis Cordis ...	0	94	94
Femur ...	0	16	16	Myxœdema ...	0	1	1
Os Calcis ...	0	1	1	Nephritis, Acute ...	1	2	3
Skull ...	0	2	2	Nephritis, Chronic ...	0	47	47
Spine ...	0	1	1	Nenritis, Acute ...	0	1	1
Multiple Fractures ...	1	0	1	Obstetric Shock ...	0	1	1
Gall Stones ...	0	4	4	Osteomyelitis, Acute ...	2	0	2
Gangrene of Penis ...	0	1	1	Ovarian Cyst ...	0	3	3
Gangrene, Senile ...	0	14	14	Paget's Disease of Bones ...	0	1	1
Gangrene, Diabetic ...	0	3	3	Pancreatitis, Acute ...	0	1	1
Gastric Ulcer—Hæmatemesis ...	0	4	4	Paralysis Agitans ...	0	1	1
Gastric Ulcer—Perforated ...	0	2	2	Pelvic Cellulitis—Childbirth ...	0	1	1

CAUSES OF DEATH AT ALL AGES—*continued.*

	Under 16 years	Over 16 years	Total		Under 16 years	Over 16 years	Total
Phlebitis ... ..	0	2	2	Cellulitis ... ..	0	1	4
Pneumonia, Hypostatic ... ..	0	9	9	Infected Wound ... ..	0	2	2
Pneumonia, Lobar ... ..	2	43	45	Tonsillitis ... ..	0	1	1
Poisoning, Suicidal, Caustic Soda ...	0	1	1	Silicosis ... ..	0	1	1
Poisoning, Suicidal, Hydrochloric Acid ... ..	0	1	1	Spina Bifida ... ..	2	0	2
Post Partum Hemorrhage ... ..	0	2	2	Stones in Kidney ... ..	0	1	1
Prematurity ... ..	40	0	40	Strangulated Hernia:			
Prostatic Hypertrophy ... ..	0	20	20	Femoral ... ..	0	3	3
Puerperal Toxæmia ... ..	0	1	1	Inguinal ... ..	0	2	2
Pulmonary Embolus ... ..	1	1	2	Internal ... ..	0	1	1
Pulmonary Abscess ... ..	0	1	1	Ventral ... ..	0	3	3
Purpura Hemorrhagica ... ..	2	0	2	Stricture of Urethra ... ..	0	7	7
Rhlyoric Stenosis ... ..	0	1	1	Syphilis, Tertiary ... ..	0	2	2
Rhynophritis ... ..	0	1	1	Toxæmia of Pregnancy ... ..	0	1	1
Rhynophinx ... ..	0	1	1	Tuberculosis of:			
Retained Placenta ... ..	0	3	3	Intestine ... ..	0	1	1
Rheumatic Fever ... ..	1	2	3	Knee ... ..	0	1	1
Rheumatoid Arthritis ... ..	0	5	5	Lungs ... ..	0	49	49
Ruptured Ectopic Gestation ... ..	0	1	1	Meninges ... ..	1	2	3
Rupture of Gall Bladder ... ..	0	1	1	Peritoneum ... ..	2	1	3
Ruptured Kidney, Traumatic ... ..	0	1	1	Spine ... ..	0	1	1
Scalpel Decay ... ..	0	77	77	Tuberculosis, General ... ..	1	4	5
Septicæmia: ... ..							
Abortion ... ..	0	1	1	Totals	90	1034	1124

The dental work done is shown in the following table.

## DENTAL DEPARTMENT.

Number of Patients	Extractions		Fillings in Perm. Teeth	Scalings	Dentures etc.	General Anaes- thetics
	Tempor- ary	Perma- nent				
240	43	1120	58	27	55	86

## MASSAGE DEPARTMENT.

Number of treatments ... .. 20,986

## (B) INFECTIOUS DISEASES HOSPITALS.

The following table gives a summary of the cases admitted to the infectious diseases hospitals:—

	Leeds Road	North Bierley	Calverley	Thornton	Total
Scarlet Fever ... ..	579	94	80	—	753
Diphtheria ... ..	526	—	37	—	563
Enteric Fever ... ..	3	—	—	—	3
Cerebro Spinal Fever ... ..	6	—	—	—	6
Erysipelas ... ..	52	—	—	—	52
Chicken Pox ... ..	15	—	—	—	15
Measles ... ..	86	—	—	—	86
Whooping Cough ... ..	28	—	—	—	28
Dysentery ... ..	12	—	—	—	12
Pneumonia ... ..	10	—	—	—	10
Other Diseases ... ..	110	—	—	—	110
Totals ... ..	1,427	94	117	—	1,638

## CITY HOSPITAL, LEEDS ROAD.

REPORT OF THE MEDICAL SUPERINTENDENT, JOHN DOUGLAS, M.D., D.P.H.

I have the honour to present the Annual Report for the year ended December 31st, 1938.

On January 1st, 1938, there were 230 patients in hospital; 1,427 patients were admitted during the year, making a total of 1,657 patients under treatment. Of these, 1,444 were discharged cured or relieved, 50 died and 163 were in hospital on December 31st, 1938.

## ADMISSIONS.

The number of admissions (1,427) shows a decrease of 230 from the previous year.

The maximum number of patients admitted during any one month was 190 in January.

The minimum number of patients admitted during any one month was 73 in August.

The maximum number of patients in hospital on any one day was 234 on January 8th.

The minimum number of patients in hospital on any one day was 91 on August 25th.

The mean daily number of patients in hospital was 146.

The average duration of stay of patients whose treatment was completed was 37.4 days.

TABLE SHOWING NUMBER OF CASES ADMITTED DURING EACH MONTH.

1938 Month				Scarlet Fever			Diphtheria			Other Diseases			Total Admissions		
				M.	F.	T'tal	M.	F.	T'tal	M.	F.	T'tal	M.	F.	T'tal
January	...	...	...	37	47	84	32	34	66	21	19	40	90	100	190
February	...	...	...	30	24	54	32	23	55	17	16	33	79	63	142
March	...	...	...	32	35	67	29	32	61	19	15	34	80	82	162
April	...	...	...	21	20	41	11	17	28	15	20	35	47	57	104
May	...	...	...	22	24	46	13	17	30	18	11	29	53	52	105
June	...	...	...	10	17	27	13	27	40	13	8	21	36	52	88
July	...	...	...	20	19	39	21	21	42	8	10	18	49	50	99
August	...	...	...	10	12	22	16	17	33	8	10	18	34	39	73
September	...	...	...	16	23	39	22	26	48	11	1	12	49	50	99
October	...	...	...	18	31	49	15	19	34	9	16	25	42	66	108
November	...	...	...	21	21	42	15	18	33	7	14	21	43	53	96
December	...	...	...	27	42	69	24	32	56	17	19	36	68	93	161
Total	...	...	...	264	315	579	243	283	526	163	159	322	670	757	1427

Hospital Death Rate : 3.5 per cent.

## SCARLET FEVER.

Of 592 cases admitted as scarlet fever the diagnosis was confirmed 579.

The average length of stay of patients whose treatment was completed was 32.3.

TABLE SHOWING AGE AND SEX INCIDENCE OF SCARLET FEVER PATIENTS.

Age	0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-	Totals
Recovered—Males	1	9	12	19	25	66	95	49	19	9	11	4	6	2	1	—	262
—Females	1	8	10	24	22	65	120	67	31	11	5	4	6	3	—	1	314
Dead—Males	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	2
—Females	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Totals	2	17	22	44	47	132	215	117	50	21	16	8	12	5	1	1	579

*Type of the Disease.*

The disease continued to be of a mild type. There were no toxic cases and only 2 septic cases.

*Case Mortality Rate.*

There were 3 deaths, a case mortality rate of .52%. The first was a girl of 3 years who developed streptococcal peritonitis, after a mild attack of the disease. The second was a boy of 10 years who developed streptococcal meningitis following otorrhœa after a mild attack of the disease. The third was a man of 23 years who was suffering from concomitant lobar pneumonia.

*Return Cases.*

Of 579 patients under treatment 5 apparently were responsible on charge for 4 secondary cases, a return case rate of 0.786%. The returning cases were all free from obvious signs of infection on their charge from hospital.

### *Complications.*

Of 579 cases of scarlet fever there were one or more complications in 221 (38·1%).

The percentage incidence of the principal complications is given in the following table :—

Complication	Males		Females		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Late Adenitis ...	49	18·5	53	16·8	102	25·3
Late Rhinitis ...	18	6·8	26	8·2	44	15·0
Otorrhea ...	31	1·17	33	10·4	64	11·57
Myositis and Arthritis	7	2·6	12	3·8	19	6·4
Nephritis and late Albuminuria ...	6	2·28	13	4·1	18	6·38

Other complications were : Boils 4, abscesses 7, septic digits 10, sores 12, cellulitis 1, appendicitis 1, herpes 3, pyelitis 1, biluria 1, bronchitis 3, dermatitis 3, laryngitis 3, pharyngitis 1, stomatitis 1, jaundice 1.

### *Ear.*

There were 64 cases of otorrhœa, and of these 3 developed acute mastoiditis. There was one death resulting from ear complications.

### *Nose.*

Rhinitis during convalescence occurred in 44 cases (6%); in 6 of these cases the diphtheria bacillus was demonstrated.

### *Throat.*

Tonsillitis during convalescence occurred in 3 cases, an incidence of 1 per cent.

### *Serum Treatment.*

Only 19 patients were given serum treatment. These patients were considered to be suffering from a more severe attack of the disease than the majority.

*Operative Treatment.*

The services of Mr. Appleyard were available in the operative treatment of ear, nose and throat complications.

Operations.					Number of Cases.	
Mastoid Antrotomy	...	...	...	...	3	
Tonsillectomy	...	...	...	...	1	

Three patients incubating measles were responsible for 10 secondary cases. Three patients incubating chicken pox on admission infected 6 others. In addition there were 2 cases of faucial diphtheria and 6 cases of diphtheritic rhinitis. In all, 24 patients contracted a second infection in hospital (4·2%).

*Concomitant Disease.*

Concomitant infections were measles 3 cases, chicken pox 5 cases, bacillary dysentery 2 cases, diabetes mellitus 1 case, diphtheria 4 cases, whooping cough 1 case, and lobar pneumonia 2 cases.

*Amended Diagnosis.*

In 13 cases it was found necessary to amend the original diagnosis.

Details of the final diagnosis are as follows :—

Bronchitis	...	...	...	...	...	2
Lobar-pneumonia	...	...	...	...	...	2
Erythemata (various)	...	...	...	...	...	3
Erysipelas	...	...	...	...	...	1
Rubella	...	...	...	...	...	1
Tonsillitis	...	...	...	...	...	4

*DIPHtheria.*

Five hundred and sixty-two patients were admitted to the wards with the diagnosis of diphtheria, which was confirmed bacteriologically in 526 cases.

The average length of stay of patients whose treatment was completed was 50·56 days.

TABLE SHOWING AGE AND SEX INCIDENCE OF DIPHTHERIA PATIENTS, 1938

	Age	0-1	1-2	2-3	3-4	4-5	5-6	6-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70+	Total
		1	2	3	4	5	6	10	15	20	25	30	35	40	45	50	55	60	65	70	+	
Clinical Cases:—																						
Recovered { Males		3	6	9	13	19	50	100	26	10	3	4	2	1	2	—	—	—	—	—	—	198
Recovered { Females		—	5	8	14	14	41	74	56	33	8	8	3	5	2	2	1	—	—	—	—	233
Died { Males ...		—	1	1	1	2	5	5	—	—	—	1	—	—	—	—	—	—	—	—	—	11
Died { Females		1	—	—	—	—	1	7	3	1	—	—	—	—	—	—	—	—	—	—	—	12
Total Clinical Cases		4	12	18	28	35	97	186	85	44	11	13	5	6	4	2	1	—	—	—	—	454

### Case Mortality Rate.

There were 23 deaths. Excluding 75 cases admitted on bacteriological evidence only, the case mortality was 5·1%.

### Fatal Cases.

Of the 23 patients who died, 6 suffered from the malignant (hæmorrhagic) type. In the majority of the other patients who died the disease was of a severe type.

### Day of disease on admission to hospital:—

Day of disease	...	...	1	2	3	4	5	6	7+
Number of fatal cases	...	...	0	1	9	3	5	0	5 = 2
Number of recoveries	...	...	18	122	100	71	51	13	56 = 43
Case mortality rate according to day of admission			0	0·8	9·0	4·2	9·8	0	8·9

The above table does not include bacteriological cases.

### Fatal Cases.

### Week of disease during which death occurred:—

Week of disease	...	1	2	3	4	5	6	7	8
Number of cases	...	12	8	1	0	1	1	0	0

*Sites of Infection.*

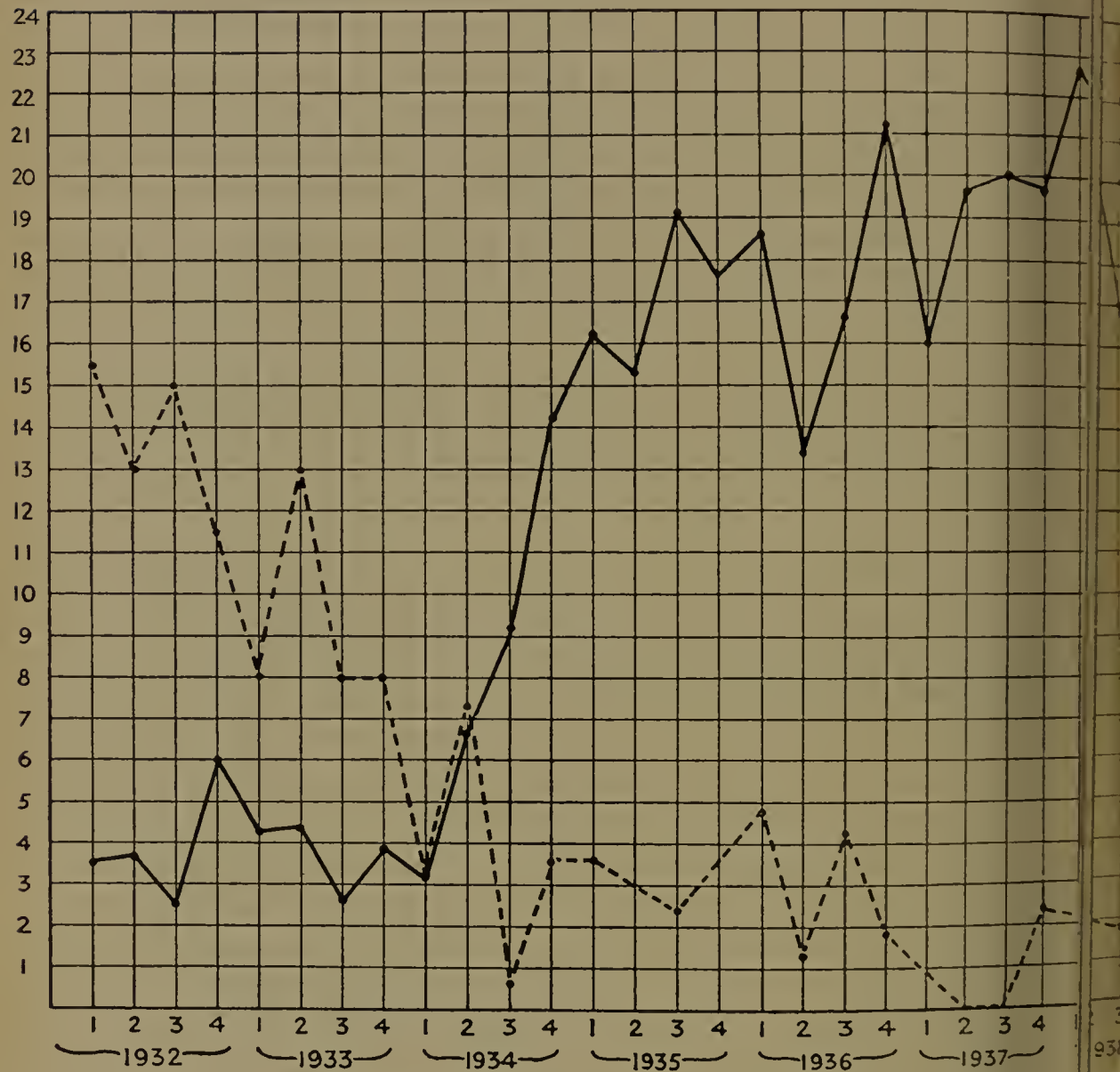
					No. of cases.	Percentage of total cases.
Fauces	...	...	...	...	346	65.9
Nose	...	...	...	...	36	6.9
Larynx	...	...	...	...	5	0.95
Fauces and Larynx	...	...	...	...	4	0.76
Fauces, Larynx, Nose and Nasopharynx	...	...	...	...	2	0.38
Fauces, Nose and Nasopharynx	...	...	...	...	60	11.4

Other site affected was the penis, 1 case. In addition to the above there were 72 cases admitted on bacteriological evidence only, 14.2%. The fauces and nose were the sites chiefly affected.

*Type of the Disease.*

The disease continued to be of a severe type, almost 20% of the admissions suffering from a severe form of the disease. The incidence of laryngeal diphtheria continued to be low.

GRAPHS SHOWING THE QUARTERLY INCIDENCE PER CENT. OF CASES OF LARYNGEAL DIPHThERIA, AND OF SEVERE TOXIC CASES OF FAUCIAL DIPHThERIA, DURING THE YEARS 1932, 1933, 1934, 1935, 1936, 1937 AND 1938



———— Severe cases of Faucial Diphtheria recorded as a percentage of total admissions.

..... Cases of Laryngeal Diphtheria recorded as a percentage of total admissions.

#### Complications.

Of 503 patients who recovered 82 had one or more complication (19.0%).

There were 36 patients who developed one or more forms of paralysis (8.4%).

The paralytic complications were classified as follows :—

	No. of cases.	Percentage of cases recovered.
All types ... ..	36	8.4
Palate ... ..	33	7.7
Ciliary ... ..	3	0.7
Pharynx ... ..	7	1.6
Oculo-motor ... ..	3	0.7
Heart ... ..	13	3.0

Other complications were :—

	No. of cases.	Percentage of cases recovered.
Otorrhœa ... ..	18	4.2
Septic Finger ... ..	9	2.1
Adenitis ... ..	14	3.2
Nephritis ... ..	1	0.2
Broncho-pneumonia ... ..	1	0.2
Others ... ..	20	4.6

#### LARYNGEAL DIPHTHERIA.

There were 11 patients in whom the larynx was affected either primarily or secondarily (2.4%).

Operative treatment was necessary in 4 cases. There were 2 deaths.

Details of operative treatment :—

Operation.	No. of Cases.	No. of Deaths.	Mortality rate per cent.
Intubation of larynx ...	4	2	50

The lowered incidence of laryngeal diphtheria is seen from the following table :—

Year.	Laryngeal Cases recorded as a percentage of Total Cases.
1932 ... ..	14.78
1933 ... ..	9.29
1934 ... ..	4.72
1935 ... ..	3.49
1936 ... ..	3.03
1937 ... ..	1.19
1938 ... ..	2.40

*Serum Treatment.*

Diphtheria antitoxin was administered intramuscularly or intravenously in practically every case. Larger doses were given during the year.

*Dosage.*

Average dose—all cases ... ..	29,535 units.
Average dose—bacteriological cases ... ..	4,769 units.
Average—mild cases ... ..	13,541 units.
Average dose—average cases ... ..	32,210 units.
Average dose—severe cases ... ..	76,659 units.
Average dose—toxic hæmorrhagic cases ...	105,000 units.

*Reactions.*

There were no cases of anaphylaxis following the administration of serum. Reactions of various kinds, mainly urticarial rashes, appeared in 9.7% of cases.

Reactions were slightly more common in females than males.

*Cross Infection.*

Seven patients developed chicken pox, 5 scarlet fever, 3 measles, 1 rubella, and 1 mumps.

In all, 17 cases contracted a second disease in hospital (3.2%).

*Amended Diagnosis.*

In 36 cases it was found necessary to amend the original diagnosis (7.0%). The details of the final diagnosis are as follows:—

Acute laryngitis ... ..	1
Tonsillitis ... ..	20
Otorrhœa ... ..	1
Broncho-pneumonia ... ..	3
Lobar-pneumonia ... ..	1
Measles ... ..	1
Bronchiectasis ... ..	1
Acute septic pharyngitis ... ..	1
Enteritis ... ..	2
T.B. Peritonitis ... ..	1
Abscess of Thigh ... ..	1
Abscess of Neck ... ..	2
Vaginitis ... ..	2

## ERYSIPELAS.

TABLE SHOWING AGE INCIDENCE OF ERYSIPELAS.

Age		0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70+	Total
Recovered	Males	...	1	1	1	1	1	1	4	2	3	5	2	1	1	3	25
	Females	...	1	1	1	2	1	2	1	3	3	5	1	1	1	1	25
Died	Males	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Females	...	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	...	...	2	2	2	3	2	3	8	6	6	10	2	1	1	4	52

Case mortality rate, 3·8%.

*Site of Infection.*

Site of Infection.	No. of Cases.		Incidence per cent.	
Face and scalp	...	44	...	84·6
Wound	...	1	...	1·9
Arm or leg	...	7	...	13·4

*Complications.*

Nine patients developed complications. There were: Cellulitis 2, herpes 1, boils 1, septic finger 1, albuminurea 1, otorrhœa 1, lobar pneumonia 1, and broncho-pneumonia 1.

*Length of Stay in Hospital.*

Excluding one patient who was 113 days in hospital, the average duration of stay in hospital of patients whose treatment was completed was 15·7 days.

## EREBRO-SPINAL FEVER.

Six patients were admitted suffering from this disease; four died, a case mortality rate of 66·66%. Of the four deaths, one took place within an hour of admission to hospital.

The two patients who recovered were treated with sulphonilamide preparations in addition to specific serum.

## ENTERIC FEVER.

There were three cases of para-typhoid fever, all females, aged 3, 9 and 21 years respectively.

### *Case Mortality.*

There were no deaths.

## MEASLES.

Eighty-six patients were admitted suffering from measles. These cases were either from other institutions or had a severe complication which made treatment at home difficult.

### *Complications.*

Complications.			No. of Cases.		Incidence per cent.	
Otorrhœa	...	...	...	20	...	23.3
Mastoiditis	...	...	...	4	...	4.7
Broncho-pneumonia	...	...	...	15	...	17.4

### *Operative Treatment.*

Mastoid antrotomy was performed on 4 cases.

### *Case Mortality Rate.*

Six patients died, a case mortality rate of 7.0%.

## WHOOPING COUGH.

Twenty-eight cases were admitted during the year. These patients were either from an institution or had severe complications, rendering their treatment at home difficult.

### *Complications.*

Broncho-pneumonia was present in 12 cases (43%).

### *Case Mortality Rate.*

There were 3 deaths, a case mortality rate of 10.7%.

## OTHER DISEASES.

Patients admitted suffering from diseases to which reference has not yet been made were classified as follows:—

INFECTIOUS DISEASES:—							Recovered	Died	Total
Chicken pox...	...	...	...	...	...	...	15	—	15
Dysentery ...	...	...	...	...	...	...	12	—	12
Rubella ...	...	...	...	...	...	...	6	—	6
Mumps ...	...	...	...	...	...	...	5	—	5
Pemphigus ...	...	...	...	...	...	...	3	—	3
PULMONARY DISEASES:—									
Bronchitis ...	...	...	...	...	...	...	6	—	6
Broncho-pneumonia	...	...	...	...	...	...	3	3	6
Lobar-pneumonia ...	...	...	...	...	...	...	4	—	4
Bronchiectosis ...	...	...	...	...	...	...	1	—	1
SEPTIC CONDITION OF NOSE AND THROAT:—									
Tonsillitis ...	...	...	...	...	...	...	32	—	32
Mastoiditis ...	...	...	...	...	...	...	6	—	6
Otorrhœa ...	...	...	...	...	...	...	2	—	2
Laryngitis ...	...	...	...	...	...	...	2	—	2
Peritonsillar abscess	...	...	...	...	...	...	1	—	1
Acute septic pharyngitis	...	...	...	...	...	...	—	1	1
Tracheitis ...	...	...	...	...	...	...	1	—	1
OTHER SEPTIC CONDITIONS:—									
Cellulitis ...	...	...	...	...	...	...	2	1	3
Furunculosis ...	...	...	...	...	...	...	7	—	7
Adenitis ...	...	...	...	...	...	...	1	—	1
ALIMENTARY SYSTEM:—									
Enteritis ...	...	...	...	...	...	...	1	—	1
Ulcerative Colitis ...	...	...	...	...	...	...	1	—	1
Marasmus ...	...	...	...	...	...	...	—	1	1
DISEASES OF SKIN:—									
Erythemata...	...	...	...	...	...	...	5	—	5
Eczema ...	...	...	...	...	...	...	3	—	3
Impetigo ...	...	...	...	...	...	...	2	—	2
OTHER CONDITIONS:—									
Nephritis ...	...	...	...	...	...	...	1	—	1
Icterus Neonatorum	...	...	...	...	...	...	—	1	1
Empyema ...	...	...	...	...	...	...	1	—	1
Pyelitis ...	...	...	...	...	...	...	1	—	1
Purpura Hæmorrhagica	...	...	...	...	...	...	—	1	1
T.B. Peritonitis ...	...	...	...	...	...	...	—	1	1
Varicose Ulceration	...	...	...	...	...	...	1	—	1
Tonsils and adenoids	...	...	...	...	...	...	1	—	1
Rheumatic fever ...	...	...	...	...	...	...	1	—	1
Vaginitis ...	...	...	...	...	...	...	2	—	2
Anti-partum hæmorrhage	...	...	...	...	...	...	1	—	1
Observation...	...	...	...	...	...	...	8	—	8
							138	9	147

## REMOVAL OF INFECTIOUS CASES.

Two motor ambulances are stationed at Leeds Road Fever Hospital. They are used for the conveyance of patients to Leeds Road Hospital, Calverley Hospital and North Bierley Hospital.

During the year they covered 10,914 miles in removing cases to the various hospitals.

All cases are removed separately so as to minimise the risk of cross-infection, and the ambulances are carefully disinfected after each journey.

A trained nurse and a removals officer accompany the ambulance on each journey.

## EAR, NOSE AND THROAT CASES.

The local authority has treated in a special department of this hospital, for some years, operative cases of diseases of the ear, nose and throat, occurring among children referred from the school and maternity and child welfare clinics.

The following is a summary of the cases treated in 1938:—

Tonsillectomy and Adenoid Curettage	...	...	457
Removal of Aural Polypus	...	...	2
Adenoids only	...	...	2
Treatment only	...	...	18
			—
Total			479
			—

## SICKNESS OF THE STAFF.

Seventeen members of the nursing staff were treated for various conditions.

Disease.		Nursing Staff.		Domestic Staff.		Working days lost to Hospital.
Diphtheria	...	1	...	3	...	115
Tonsillitis	...	7	...	1	...	57
Appendicitis	...	0	...	1	...	15
Influenza	...	1	...	1	...	15
Trauma	...	1	...	0	...	157
Mumps	...	1	...	0	...	16
Ascitis	...	1	...	0	...	11
Bronchitis	...	1	...	0	...	2
Measles	...	1	...	0	...	13
Nephritis and Adenitis		1	...	0	...	56
Scarlet Fever	...	0	...	1	...	50
Other conditions	...	2	...	0	...	14
		—		—		—
Totals	...	17	...	7	...	524
		—		—		—

*Immunisation of the Staff.*

New members of the nursing staff found to be susceptible to diphtheria and scarlet fever were immunised against these diseases. Eleven (50%) were susceptible to diphtheria and were successfully immunised. Three (13%) were susceptible to scarlet fever and were successfully immunised.

*Laboratory.*

The number of specimens dealt with in the laboratory amounted to 6,670.

Cultures examined for diphtheria organisms	...	...	6,515
Urines	...	...	150
Cerebro-spinal fluids	...	...	5

## SUMMARY.

YEAR.	SMALL-POX.			ENTERIC FEVER.			SCARLET FEVER.			DIPHTHERIA.			OTHER DISEASES.			TOTALS.			From 1925 to 1938.	
	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.		
1926	—	—	—	9	—	—	450	—	—	254	10	6.29	223	15	6.72	936	31	3.31	29,127	31.1
1927	—	—	—	11	1	9.0	335	—	—	292	26	8.9	254	31	12.2	892	57	5.6	25,475	28.5
1928	140	4	2.85	12	2	16.6	812	3	0.37	132	4	3.03	126	11	8.6	1,222	24	1.9	35,129	28.7
1929	—	—	—	3	1	33.3	1,103	9	0.81	338	39	11.5	232	23	10.3	1,678	72	4.3	49,060	29.3
1930	—	—	—	5	—	—	875	12	1.37	271	18	6.64	153	13	8.5	1304	43	3.29	38,216	29.3
1931	26	—	—	4	1	25.0	590	1	0.17	183	9	4.92	326	35	10.74	1103	46	4.17	36,672	33.2
1932	—	—	—	28	1	3.57	490	6	1.22	230	17	7.39	273	24	8.79	1,021	47	4.7	36,348	35.6
1933	—	—	—	10	—	—	598	3	0.5	286	10	3.5	439	50	11.39	1,323	63	4.76	38,896	29.4
1934	—	—	—	—	—	—	954	7	0.84	657	31	4.72	267	29	10.86	1,878	67	3.57	58,273	31.0
1935	—	—	—	3	1	33.3	846	3	0.35	746	47	6.30	305	41	13.10	1900	92	4.84	68,915	36.3
1936	—	—	—	3	—	—	795	2	0.25	718	45	6.20	262	34	13.00	1778	81	4.55	69,414	39.0
1937	—	—	—	7	1	14.3	604	2	0.33	713	44	6.17	330	20	6.06	1647	66	4.0	64,730	39.3
1938	—	—	—	3	—	—	579	3	0.51	526	23	4.27	319	24	7.5	1427	50	3.5	53,318	27.4

## VIII.—HOUSING.

(1) *New Houses in 1938.* The average number of new houses certified fit for human habitation annually during the five years preceding 1924 was 240, and the following statement shows the number so certified each year since then :—

Year	New Houses	Year	New Houses	Year	New Houses
1924	711	1929	958	1934	1,455
1925	1,521	1930	508	1935	1,524
1926	2,246	1931	604	1936	1,468
1927	2,069	1932	1,129	1937	1,650
1928	1,927	1933	1,141	1938	1 801
1924-28	1,695 (average)	1929-33	868 (average)	1934-38	1,580 (average)

The number of new houses built during the past ten years in each Ward and certified as fit for human habitation in accordance with the Bradford Waterworks and Improvement Act, 1871, is shown in the table on the following page.

During the year the Corporation erected 376 houses and 112 single-room dwellings on the Canterbury Avenue Estate; 10 houses and 36 single room dwellings at White Abbey; 68 houses and 24 single-room dwellings at Gibson Street, and 5 houses and 6 single-room dwellings at North Wing, whilst at the end of the year 550 houses were being built by private enterprise.

The total number of new houses built in the City during the 15 years ended 31st December last was 20,968; 8,496 of these houses have been built by the Local Authority with State assistance; 4,222 houses were built by private enterprise with the aid of the Government subsidy (3,761 under the Housing Act, 1923, and 461 under the Housing (Financial Provisions) Act, 1924; and 8,250 houses were built by private enterprise without State assistance. In addition 68 houses and shops were built by the Local Authority without State assistance.

The type and accommodation of the houses built by the Local Authority, together with their locality, are set out in the table on page 145.

## NEW BUILDINGS.

*Showing number of New Buildings certified as fit for habitation in each of the Wards, and in the whole City, during the years 1929-1938.*

WARDS	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Allerton ... ..	159	35	147	681	59	80	126	121	54	33
Bolton ... ..	37	13	23	55	71	95	81	41	152	67
Bradford Moor ... ..	40	14	10	40	36	72	195	92	1	20
Clayton ... ..	42	34	33	34	461	111	76	61	36	40
East Bowling ... ..	—	7	6	3	—	5	13	52	70	28
Eccleshill ... ..	169	43	58	59	34	33	46	127	158	172
Exchange ... ..	—	16	—	1	1	8	117	4	24	45
Great Horton ... ..	7	7	63	58	97	116	108	123	105	61
Heaton ... ..	13	12	14	4	21	24	19	28	31	56
Idle ... ..	57	9	47	13	33	19	46	92	84	87
Listerhills ... ..	—	3	1	—	—	—	—	—	—	12
Little Horton ... ..	3	6	—	2	10	19	21	8	320	504
Manningham ... ..	116	148	—	—	7	14	48	108	6	10
North East ... ..	—	—	—	3	15	97	26	17	16	15
North Bierley East ... ..	63	15	14	52	55	72	53	29	49	42
North Bierley West ... ..	154	95	48	77	81	210	260	262	216	231
South ... ..	—	—	—	—	3	8	12	17	—	112
Thornton ... ..	9	4	8	11	36	103	90	98	74	75
Tong ... ..	7	5	10	17	82	324	52	68	66	50
West Bowling ... ..	82	42	20	19	39	45	135	120	188	141
City Total ... ..	958	508	504	1129	1141	1455	1524	1468	1650	1801

(2) *Overcrowding.* Many very serious cases of overcrowding continue to come to the knowledge of the department during the year, but despite the increase in the provision of houses there still remains a great scarcity of housing accommodation, which complicates the position. On the 31st December, 1938, the number of applicants for new houses was approximately 3,387; 325 of whom were living in apartments.

## TYPES OF HOUSES BUILT BY THE LOCAL AUTHORITY.

1920 to 1938.

Site	Non-parlour 4 bed- rooms	Parlour and 4 bed- rooms	Parlour and 3 bed- rooms	Non-parlour 3 bed- rooms	Non-parlour 2 bed- rooms	Houses for aged persons	Flats	Total	Houses and Shops
Odsal ...	—	—	28	386	40	—	—	454	4
Thornbury ...	—	—	20	130	16	—	—	166	2
Bradford Moor ...	—	12	114	468	74	—	—	668	12
Scholemoor ...	—	10	122	360	12	—	—	504	6
Thackley ...	—	—	—	58	—	—	—	58	—
Eccleshill ...	—	—	120	718	40	—	—	878	6
Shirley Manor	—	—	—	350	—	—	—	350	4
Chellow Grange ...	—	—	52	674	44	—	—	770	—
Bierley ...	—	—	50	814	—	49	—	913	16
Thornton ...	—	—	100	200	20	—	—	320	—
Swain House ...	—	—	32	654	52	—	—	738	8
Lower Grange	—	—	68	718	30	—	—	816	8
Whetley Lane	—	—	—	180	36	24	156	396	—
Greengates ...	—	—	—	40	—	—	—	40	—
Musgrave Rd.	—	—	—	42	—	—	—	42	—
White Abbey	16	—	—	58	—	36	124	234	—
Low Moor ...	—	—	—	22	—	—	—	22	—
Idle ...	—	—	—	86	—	—	—	86	—
Woodhall Place ...	—	—	—	6	—	—	—	6	—
Clayton ...	—	—	1	73	—	—	—	74	—
Longlands ...	—	—	—	—	—	—	66	66	—
Canterbury Avenue ...	48	—	—	372	236	136	—	792	2
Gibson Street	6	—	—	62	—	24	—	92	—
North Wing	1	—	—	4	—	6	—	11	—
Totals ...	71	22	707	6,475	600	275	346	8,496	68

*Wapping and Broomfield Areas.*

At the end of the year practically the whole of the houses in these areas had been vacated and demolished, alternative accommodation having been offered to the tenants.

HOUSING ACT, 1936. OVERCROWDING PROVISIONS.

On the 1st January, 1938, there were 365 overcrowded houses in the City (including 5 houses-let-in-lodgings).

During the year a further 103 houses became overcrowded by reason of children attaining the age of 10 years, increased families, etc.

Two hundred and sixty-one houses have been decrowded during the year.

On 31st December, 1938, the total number of overcrowded houses was 207.

During the year 11,789 houses were visited and inspected in order to obtain particulars in accordance with the enactment, and 891 Informal Notices were sent to owners or agents enclosing a summary of the Overcrowding Provisions as affecting landlords together with the "permitted numbers" of persons allowed to occupy their properties.

## HOUSING STATISTICS, 1938.

Total number of new houses erected during the year ... ..	1,801
(i) By the Local Authority ... ..	637
(ii) By other Local Authorities ... ..	—
(iii) By other bodies and persons... ..	1,164
I—Inspection of dwelling-houses during the year:—	
(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) ... ..	14,220
(b) Number of inspections made for the purpose ... ..	35,593
(2) (a) Number of dwelling-houses included under sub-head (1) above which were inspected and recorded under the Housing Consolidated Regulations, 1925 ... ..	1,992
(b) Number of inspections made for the purpose ... ..	26,911
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... ..	290
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ... ..	3,453
II—Remedy of Defects during the year without service of formal Notices:—	
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers ... ..	1,658
III—Action under Statutory Powers during the year:—	
A. Proceedings under Sections 17, 18, and 23 of the Housing Act, 1930, and Sections 9, 10, and 16 of the Housing Act, 1936:—	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ..	22
(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners ... ..	12
(b) By Local Authority in default of owners ... ..	10
B. Proceedings under Public Health Acts:—	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... ..	1,108
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—	
(a) By owners ... ..	1,580
(b) By Local Authority in default of owners ... ..	16
C. Proceedings under Section 11 of the Housing Act, 1936:—	
(1) Number of dwelling-houses in respect of which demolition orders were made ... ..	155
(2) Number of dwelling-houses demolished in pursuance of demolition orders ... ..	50
(3) Number of dwelling-houses demolished by owners in pursuance of scheme under Section 11 of the Housing Act, 1936 ... ..	42
(4) Number of dwelling-houses in respect of which undertakings were given that houses would not be used for human habitation ... ..	—
(5) Number of dwelling-houses in respect of which undertakings were given that houses would be rendered fit for human habitation ... ..	20
(6) Number of dwelling-houses in respect of which undertakings were complied with to the satisfaction of the Local Authority ... ..	101
D. Proceedings under Section 20 of the Housing Act, 1930:—	
(1) Number of separate tenements or underground rooms in respect of which closing orders were made ... ..	—
(2) Number of separate tenements or underground rooms in respect of which closing orders were determined, the tenement or room having been rendered fit ... ..	—

## IX.—MISCELLANEOUS

## (A) WELFARE OF THE BLIND.

The Bradford City Council have appointed an ophthalmic surgeon to supervise the treatment of persons residing within their area who are suffering from any disease or injury to the eye. This surgeon works in close association with the Maternity and Child Welfare staff in connection with the treatment of Ophthalmia Neonatorum and with the School Medical Staff in the treatment of eye conditions.

TABLE I.  
PERSONS REGISTERED AS BLIND.

Age	Males	Females	Total
0-5	—	—	—
5-16	1	3	4
16-21	13	4	17
21-40	35	38	73
40-50	51	41	92
50-65	106	90	196
65-70	47	47	94
Over 70	77	128	205
	330	351	681

TABLE II.  
BLIND PERSONS 16 YEARS OF AGE AND OVER.

	Males	Females	Total
Employed	90	36	126
Trained but not employed	1	—	1
Under training	11	3	14
Trainable but not under training	5	1	6
Unemployable	222	308	530
	329	348	677

In this table 677 blind persons who are 16 years of age and over, are classified according to their ability to work, etc.

TABLE III.  
BLIND PERSONS WHO ARE PHYSICALLY OR MENTALLY DEFECTIVE.

	Males	Females	Total
Mentally defective	10	15	25
Physically defective	10	17	27
Deaf	16	18	34
Combinations of above disabilities	4	7	11
	40	57	97

In this table 97 blind persons who are suffering from some other serious physical defect or who are mentally defective are analysed.

## IX.—MISCELLANEOUS.

**(B) GENERAL DENTAL WORK.**

## DENTAL CLINIC, 22 EDMUND STREET.

## REPORT OF THE DENTAL OFFICER, H. P. SHOESMITH, L.D.S.

I have the honour to present the annual report for the year ended 31st December, 1938.

The dental work carried out on behalf of the City of Bradford Health Committee has followed the same procedure as in previous years and has been greatly appreciated by the patients entitled to treatment, that is, those in attendance at one of the Health Committee's institutions.

Dental caries and dental sepsis are widespread and the evils resulting therefrom devastating. The constant absorption of pus from septic roots, gumboils, etc., is the cause of numerous general diseases, and it is only by their elimination that the cure of these diseases can be accomplished. Fortunately the general public are beginning to realise the importance of having clean mouths. Of these people, the expectant mother is not the least important and dental fitness not only for her own sake but for her unborn child is being recognised at its true value.

Prejudice against having dental treatment during pregnancy is being gradually overcome, and expectant mothers from the ante-natal clinics of St. Luke's Hospital and Edmund Street attend in large numbers.

In regard to the actual work performed it is the invariable custom to give an anæsthetic for all extractions either by a general anæsthetic like nitrous oxide or by a local anæsthetic which is injected in the gums, and for all operations an endeavour is made to conduct them as painlessly as possible; in suitable cases a local injection being given for preparation of teeth for filling.

A certain number of school cases are referred to me for special treatment in the form of regulation of misplaced teeth, crowning of teeth, root fillings and dentures.

St. Luke's Hospital is visited twice weekly, Bierley and Grassington Sanatoria are visited every five or six weeks. Ashfield Mental Home is visited bi-annually and Westwood Mental Home is visited every fortnight. Here there is a finely fit up surgery where all the work is carried out.

Public Assistance cases both from the institutions and those getting relief at home attend the clinic in large numbers and many dentures are provided. In necessary cases the institutions are visited by the dental officer.

Pre-school children attend the clinic in large numbers and the treatment is appreciated, if not always by the children, at least by the parents.

Details of the work will be found on page 152.

### (C) AMBULANCE WORK AND DISINFECTION.

The ambulance facilities for the city are as follows :—At the City Fever Hospital there is provided a motor ambulance, which during 1938 removed 1,781 cases to Hospital. At the Municipal General Hospital three motor ambulances are provided, which in addition to removing cases to the General Hospital, also removed cases to Bierley Hall Sanatorium and the voluntary institutions in the city. The police maintain a motor ambulance for street casualties. Two motor ambulances are maintained for the removal of physically defective children to school, and one motor ambulance is maintained at Grassington for the removal thereto of cases of Pulmonary Tuberculosis.

The total number of articles disinfected at the Disinfecting Station, Canal Road, was 6,290, as against 6,757 last year. The number of houses disinfected by the Disinfecting Officer was 1,596, as again 1,797 last year. In addition disinfection was carried out at the request of manufacturers, property owners, and others, for which charges were made amounting to £261 9s. 0d. The revenue from this source last year was £207 11s. 0d.

### ERADICATION OF BED BUGS.

#### PARTICULARS OF ACTION TAKEN DURING 1938.

The number of Council houses found to be infested was 84, of these 74 were disinfested. The number of other houses found to be infested was 517, and 262 were disinfested. This is carried by stoving with S.O<sub>2</sub> and spraying with Clymax Insecticide. In addition to the above there were 699 disinfestations of belongings of tenants before removal to Council houses, the method employed being fumigation of all furniture by C.O<sub>2</sub> and S.O<sub>2</sub>, bed linen and personal clothing by steam disinfection, carried out by the Local Authority. Frequent visitation is carried out by the district sanitary inspectors to prevent re-infestation.

**(D) PUBLIC MORTUARY AND CREMATORIUM.**

During the past year 166 bodies have been deposited and 73 post-mortem examinations made in the Public Mortuary. Since the opening in October, 1910, 2,918 bodies have been deposited.

The remains of 274 persons were cremated during 1938 at the Scholemoor Crematorium, in comparison with 216 during the previous year.

TABLE SHOWING WORK CARRIED OUT AT THE DENTAL CLINIC DURING THE YEAR.

Source	Number of Patients	Number of Patient's Visits	Temporary Teeth Extracted	Temporary Teeth Filled	Permanent Teeth Extracted	Permanent Teeth Filled	Scalings	Dentures Repairs, etc.	Anæsthetics	Other Operations		
										Root Cases	Dressings	Crowns & Regs
St. Luke's Hospital	240	443	43	—	1110	58	27	61	86	2	101	—
Tuberculosis Scheme ...	195	228	57	1	169	41	12	15	29	—	25	—
Maternity	373	914	—	—	1861	44	30	109	244	4	206	—
Infants & young Children ...	625	710	1495	79	—	—	—	—	594	—	4	—
School Children ...	27	63	2	—	6	12	2	13	2	4	12	5
Mental Institutions	280	294	1	—	173	96	103	13	5	1	32	—
Public Assistance	150	502	—	—	645	11	6	114	58	1	201	—
Totals ...	1890	3154	1598	80	3964	262	180	325	1018	12	581	5

TABLE I.  
VITAL STATISTICS OF WHOLE DISTRICT DURING 1938 AND PREVIOUS YEARS.

YEAR.	Popu- lation estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
		Un- corrected Numbers.	NETT.		Number.	Rate.	of Non- residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett. Births.		
1933	295,100	4033	3901	13.22	4482	15.18	318	168	310	79	4332	14.68
1934	293,650	4156	4016	13.68	4062	13.83	314	172	249	62	3920	13.35
1935	292,200	4105	3959	13.55	4371	14.62	330	132	253	64	4173	14.28
1936	290,500	4033	3899	13.42	4523	15.57	352	165	321	82	4336	14.93
1937	289,510	4177	4007	13.85	4466	15.43	396	168	278	69	4238	14.64
1938	288,700	4035	3900	13.51	4155	14.46	358	177	228	58	3974	13.76

TABLE II.  
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1938.

NOTIFIABLE DISEASE	CASES NOTIFIED IN WHOLE DISTRICT						TOTAL CASES NOTIFIED IN EACH LOCALITY																					
	At all Ages	At Ages—Years						Allerton	Bolton	Bradford Moor	Clayton	East Bowling	Eccleshill	Exchange	Great Horton	Heaton	Idle	Listerhills	Little Horton	Manningham	North-East	North Bierley E	North Bierley W	South	Thornthorn	Tong	West Bowling	
		Under 1	1—5	5—15	15—25	25—45	45—65																					Over 65
Smallpox	631	22	150	341	76	38	4	21	24	43	17	19	30	53	48	38	12	30	42	46	19	64	33	24	17	11	40	
Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Erysipelas	168	1	3	6	11	42	81	24	3	8	9	12	10	3	11	9	6	11	8	8	7	13	13	8	7	7	7	
Scarlet Fever	896	3	197	503	118	69	5	1	40	22	37	42	57	74	49	44	41	30	46	76	45	57	53	47	18	48	44	
Enteric Fever	4	—	1	1	—	—	—	—	1	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Puerperal Pyrexia	57	—	—	—	10	47	—	—	1	2	3	1	5	3	4	2	—	2	1	5	6	4	1	2	3	4	3	
Cerebro-Spinal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Meningitis	13	1	4	1	3	3	1	—	3	1	—	—	—	—	—	—	1	1	1	1	1	—	—	2	—	—	—	
Poliomyelitis	...	21	—	—	—	—	—	—	2	—	—	—	—	—	7	—	4	—	2	1	2	—	—	2	—	—	—	
Ophth. Neonatorum	4724	197	2684	1801	32	9	1	—	147	186	314	113	196	320	228	213	217	47	343	149	352	360	300	253	320	218	322	
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
German Measles	131	13	38	73	3	2	2	—	5	5	3	4	3	6	5	8	9	4	21	12	2	14	3	16	5	—	2	
Whooping Cough	1713	126	1015	549	6	14	2	1	83	119	61	16	140	135	78	54	84	84	28	73	123	167	41	63	139	80	53	
Chicken Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pulmonary Tuberculosis	1705	55	591	1020	33	6	—	—	47	37	60	175	71	71	51	73	71	57	45	57	66	114	182	95	54	109	111	
Other forms of Tuberculosis	194	—	1	11	45	81	53	3	5	8	15	8	12	9	14	6	11	5	11	15	9	18	2	8	16	4	4	
Cutis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Infective Enteritis	84	1	14	33	13	11	11	1	3	6	6	1	2	2	7	6	1	2	5	3	3	7	7	4	8	3	2	
Anthrax	22	20	1	—	—	—	—	—	—	1	—	—	—	1	—	—	5	1	2	4	—	2	2	—	4	—	—	
Polio-encephalitis	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Encephalitis Lethargica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pneumonia	428	42	109	65	34	77	71	30	13	19	13	22	11	14	35	10	21	4	26	67	13	27	26	13	25	17	24	
Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dysentery	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
TOTALS	10829	502	4820	4416	385	408	237	61	375	141	569	413	529	668	548	473	512	257	575	519	677	800	698	547	629	507	565	527

TABLE III.  
CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE DURING THE YEAR 1938.

Causes of Death		All Ages	0 to 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards
All Causes...	...	3974	228	32	29	64	79	113	207	357	785	1144	936
Typhoid and Paratyphoid Fevers	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	14	5	5	2	2	...	...	...	...	...	...	...
Scarlet Fever	...	4	...	...	2	...	1	...	...	...	1	...	...
Whooping Cough	...	11	8	3	...	...	...	...	...	...	...	...	...
Diphtheria	...	24	1	1	4	16	1	1	3	4	2	4	8
Influenza	...	25	...	...	2	1	...	1	...	...	3	...	...
Encephalitis Lethargica	...	4	...	...	...	...	2	...	2	1	...	...	...
Cerebro-spinal Fever	...	6	1	...	...	...	...	...	...	...	...	...	...
Tuberculosis of Respiratory System	...	154	...	...	...	1	21	27	28	29	39	9	...
Other Tuberculous Diseases	...	30	...	3	4	4	4	2	5	3	3	1	1
Syphilis	...	12	...	...	...	...	...	1	1	4	5	1	1
General Paralysis of the Insane, Tabes Dorsalis	...	22	...	...	...	...	...	...	32	67	126	209	82
Cancer, Malignant Disease	...	523	...	...	...	2	...	5	8	20	61	91	63
D. betes	...	48	...	...	...	...	...	2	29	81	242	456	438
Cerebral Haemorrhage, etc.	...	245	...	...	...	5	6	12	...	1	5	2	...
Heart Disease	...	1269	...	...	...	...	...	...	...	15	48	89	78
Aneurysm	...	8	...	...	...	...	1	...	3	15	27	31	23
Other Circulatory Diseases	...	234	...	...	...	...	...	...	5	7	29	23	17
Bronchitis...	...	100	3	...	1	1	...	2	...	...	...	...	...
Pneumonia (all forms)	...	167	35	7	5	7	5	9	9	21	4	5	...
Other Respiratory Diseases	...	21	...	...	...	1	...	3	3	5	...	...	...
Peptic Ulcer	...	44	...	...	...	...	...	6	5	9	12	9	3
Diarrhoea, etc.	...	25	...	...	...	...	1	...	...	...	1	...	...
Appendicitis	...	13	21	1	...	...	1	2	...	1	2	5	1
Cirrhosis of Liver	...	7	...	...	...	...	1	...	...	1	3	1	1
Other Diseases of Liver, etc.	...	18	...	...	...	...	...	...	...	1	...	...	...
Acute Digestive Diseases	...	50	4	...	...	...	...	...	...	1	16	13	9
Acute and Chronic Nephritis	...	139	...	1	...	1	3	4	1	8	43	44	5
Puerperal Sepsis	...	2	...	...	...	...	...	2	9	16	...	...	19
Other Puerperal Causes	...	15	...	...	...	...	3	6	6	...	...	...	...
Congenital Debility, Premature Birth, Malformations, etc.	...	126	121	5	...	...	...	...	...	...	...	...	...
Senility	...	108	...	...	...	...	...	...	...	...	...	12	96
Suicide	...	47	...	...	...	...	3	5	11	4	18	4	2
Other Violence	...	147	6	...	7	13	15	9	2	13	30	30	32
Other Defined Diseases	...	293	28	4	...	9	11	10	36	32	50	70	46
Causes ill-defined or unknown	...	19	...	...	...	...	...	...	...	1	5	7	6

TABLE IV.

INFANT MORTALITY, 1938. NETT DEATHS FROM STATED CAUSES  
AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
Smallpox ... ..	—	—	—	—	—	—	—	—	—	—
Chicken-pox ... ..	—	—	—	—	—	—	—	—	—	—
Measles ... ..	—	—	—	—	—	2	1	2	—	5
Scarlet Fever ... ..	—	—	—	—	—	—	—	—	—	—
Whooping Cough ... ..	—	—	—	—	—	1	2	3	2	8
Diphtheria and Croup ... ..	—	—	—	—	—	1	—	—	—	1
Erysipelas... ..	—	—	—	—	—	—	—	—	—	—
Tuberculous Meningitis ... ..	—	—	—	—	—	—	—	—	—	—
Tuberculosis of Intestines and Peritoneum ... ..	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases ... ..	—	—	—	—	—	—	—	—	—	—
Meningitis ( <i>not Tuberculous</i> ) ... ..	—	—	—	—	—	—	—	2	2	4
Convulsions ... ..	5	1	1	1	8	1	3	1	1	14
Laryngitis ... ..	—	—	—	—	—	—	—	—	—	—
Bronchitis ... ..	—	—	1	1	2	—	—	—	1	3
Pneumonia (all forms) ... ..	—	1	—	1	2	13	7	8	5	35
Diarrhoea and Enteritis ... ..	—	—	1	1	2	7	8	3	1	21
Gastritis ... ..	—	—	—	—	—	—	—	—	—	—
Syphilis ... ..	—	—	—	—	—	—	—	—	—	—
Rickets ... ..	—	—	—	—	—	—	—	—	—	—
Suffocation, overlying ... ..	—	—	—	—	—	—	—	—	—	—
Injury at birth ... ..	17	—	1	—	18	—	—	—	—	18
Atelectasis... ..	2	—	—	—	2	—	—	—	—	2
Congenital Malformations ... ..	5	2	3	2	12	2	1	—	2	17
Premature Birth ... ..	67	6	4	1	78	2	—	—	—	80
Atrophy, Debility and Marasmus ... ..	—	—	—	—	—	2	—	—	—	2
Other Causes ... ..	7	—	1	1	9	1	5	3	—	18
All Causes ... ..	103	10	12	8	133	32	27	22	14	228

Nett Births in the year—Legitimate, 3680; illegitimate, 220.

Nett Deaths in the year—Legitimate infants, 214; illegitimate infants, 14.

TABLE V.  
PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1930.  
Summary of Notifications during the period from 1st January, 1938, to the 31st December, 1938.

AGE PERIODS	NUMBER OF NOTIFICATIONS ON FORM A												Total Notifications (i.e., including cases previously notified by other doctors)	
	Primary Notifications													
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total		
Pulmonary:—														
Males ...	—	1	1	4	10	12	21	20	24	19	3	115	127	
Females ...	—	—	2	4	13	10	23	17	7	3	—	79	84	
Non-pulmonary:—														
Males ...	—	5	10	6	3	2	2	4	3	5	—	40	43	
Females ...	1	9	7	10	5	3	1	4	2	1	1	44	48	

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CITY OF BRADFORD

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ANNUAL REPORT  
OF THE  
SCHOOL MEDICAL  
OFFICER

1938

2. CO-ORDINATION.—The School Medical Officer is also Medical Officer of Health and the closest co-operation exists between all branches of the Medical Staff dealing with childhood. For this purpose there is a Joint Health and Education Special Sub-Committee which deals with questions affecting the School Medical Department.

3. SCHOOL HYGIENE.—On the occasion of each routine inspection of the children at the School the Medical Officer surveys and reports upon the hygienic conditions of the School.

The following table is an analysis of the hygienic conditions tabulated from the summary sheets which are completed by the Medical Officers at the close of each school inspection:—

Items in Schools reported on	Conditions found	
	Provided Schools Inspected 115	Non-provided Schools Inspected 59
1.—Surroundings:—		
Open ... ..	89	29
Thickly populated ... ..	26	30
2.—Ventilation:—		
Natural, Satisfactory ... ..	78	57
Unsatisfactory ... ..	14	2
Artificial, Satisfactory ... ..	15	—
Unsatisfactory ... ..	8	—
3.—Lighting:—		
Natural, Satisfactory ... ..	113	58
Unsatisfactory ... ..	2	1
Artificial, Satisfactory ... ..	95	49
Unsatisfactory ... ..	20	10
4.—Heating:—		
Satisfactory ... ..	108	56
Unsatisfactory ... ..	7	3
5.—Furniture:—		
(a) Desks: Old-fashioned Unsatisfactory ... ..	5	3
Modern, Satisfactory ... ..	95	54
Unsatisfactory ... ..	15	2
(b) Blackboards: Satisfactory ... ..	112	58
Unsatisfactory ... ..	3	1
6.—Water Supply:—		
(a) Washing (towels, etc.), Adequate ... ..	111	57
Inadequate ... ..	4	2
(b) Drinking Cups, Sufficient ... ..	114	59
Insufficient ... ..	1	—
7.—Cloakroom:—		
(a) Condition, Satisfactory ... ..	98	49
Unsatisfactory ... ..	17	10
(b) Arrangements for drying clothes etc.		
Present ... ..	53	26
Absent ... ..	62	33

8.—Walls and Floors, Condition and Cleanliness—							
Satisfactory	...	...	...	...	...	85	47
Unsatisfactory	...	...	...	...	...	30	12
9.—Sanitary Conveniences:—							
(a) Lavatories, Satisfactory	...	...	...	...	...	105	50
Unsatisfactory	...	...	...	...	...	7	3
Satisfactory, but insufficient	...	...	...	...	...	3	6
(b) W.C.'s, Satisfactory	...	...	...	...	...	86	46
Unsatisfactory	...	...	...	...	...	22	13
Satisfactory, but insufficient	...	...	...	...	...	7	—
(c) Urinals, Satisfactory	...	...	...	...	...	81	43
Satisfactory, but insufficient	...	...	...	...	...	—	1
Unsatisfactory	...	...	...	...	...	19	10
10.—Playgrounds, Satisfactory	...	...	...	...	...	79	26
Satisfactory, but inadequate	...	...	...	...	...	6	13
Unsatisfactory	...	...	...	...	...	30	20

Swimming Baths are in use at six of the Provided Schools. Children from all other schools in the locality of those with baths attend or swimming.

In some districts where there is not a bath attached to any school, arrangements are made for the children to attend baths which are provided by the Baths' Committee.

Slipper and shower baths are provided at most of the Special and Nursery Schools.

4. MEDICAL INSPECTION.—(a) During the year 1938 a Routine Medical Inspection was carried out in every School in Bradford.

The classes of children medically inspected with the numbers examined in each class during 1933 and 1937 are as follow:—

	1938	1937	Difference
1. Children admitted for the first time during the year (Entrants) ...	3501	3770	—266
2. Second Age Group (Intermediates)...	3373	3459	— 86
3. Third Age Group (Leavers) ...	2856	3046	—190
4. Other Ages ...	929	622	+307
5. Candidates for Secondary Schools ...	1415	1294	+121
6. Children attending Council High Schools and Bradford Grammar Schools ...	4435	4443	— 8
7. Children attending Nursery Schools	923	902	+21
8. Children attending Special Schools...	230	232	— 2
	<u>17665</u>	<u>17768</u>	<u>—103</u>

Special Inspections of Elementary, Special, Nursery, and High Schools show a decrease of 1,659 children inspected and an increase of 547 re-inspections.

(b) There has been no change in the arrangements made and the methods adopted for the Medical Inspections.

(c) Grave defects are in a large number of cases recognised in Bradford before the children arrive at school age through the agency of notification by health visitors, maternity and child-welfare centres and the like. A system is in operation whereby all medical records of children discharged from, or who have discontinued to attend the Maternity and Child Welfare Department, are transferred to the School Medical Department. On admission to school all grave defects noted by the School Teachers are notified to the School Medical Officer, and the children examined at once. A census of all children in the City of school age is taken annually by the School Attendance Officers, and children who have reached five years of age and whose names are not on any school register are reported to the School Medical Officer, who has each case either medically examined at the Clinic or obtains satisfactory medical evidence that the child is not fit to attend school. Many of these cases are treated at School Clinics or Hospitals under the Authority's Scheme.

## 5. FINDINGS OF MEDICAL INSPECTION:—

CLOTHING AND FOOTGEAR.—Records of the 17,665 children examined at the Routine Medical Inspections during the year show a very low percentage found to have inadequate or unsuitable clothing.

The following Table records the findings of the School Medical Officers at the Routine Inspections:—

Code Group	Numbers Inspected	Clothing Inadequate or Unsuitable				Footgear Inadequate or Unsuitable			
		B.	G.	T.	%	B.	G.	T.	%
Entrants ... ..	3504	1	1	2	·06	1	1	2	·06
Second Age Group	3373	—	—	—	—	1	1	2	·06
Third Age Group...	2856	1	1	2	·07	2	12	14	·49
Other Ages ... ..	929	—	—	—	—	—	—	—	—
Special Schools ...	230	1	1	2	·87	—	1	1	·44
Candidates for Secondary Schools	1415	—	—	—	—	—	—	—	—
Secondary Schools	4435	—	1	1	·02	8	—	8	·18
Nursery Schools ...	923	—	—	—	—	—	—	—	—
Total ... ..	17665	3	4	7	·04	12	15	27	·14

(a) NUTRITION.—The Nutrition of the children examined at the Routine Medical Inspections has been assessed in the four grades laid down in Administrative Memorandum No. 124. The following Table shows the comparison with the findings of 1937 and 1936:—

Age Groups	Number of Children Inspected	A Excellent		B Normal		C Slightly Sub-normal		D Bad	
		No.	%	No.	%	No.	%	No.	%
Entrants ...	1938	3504	77.6	2653	75.7	75	2.1	—	—
	1937	3770	70.4	2958	78.5	108	2.8	—	—
	1936	3901	68.0	3111	79.8	110	2.8	—	—
Second Age-group	1938	3373	74.0	2536	75.2	97	2.9	—	—
	1937	3459	78.5	2538	73.4	136	3.9	—	—
	1936	3328	56.2	2598	78.0	167	5.0	1	.00
Third Age-group	1938	2856	73.9	2053	71.9	64	2.2	—	—
	1937	3046	76.4	2168	71.2	113	3.7	1	.03
	1936	2840	69.0	2032	71.5	118	4.2	—	—
Other Routine Inspections	1938	2344	58.8	1708	72.8	48	2.0	—	—
	1937	1916	49.2	1365	71.2	59	3.1	—	—
	1936	1949	45.2	1429	73.3	68	3.5	—	—
Elementary Totals	1938	12077	28.43	8950	74.1	284	2.4	—	—
	1937	12191	27.45	9029	74.0	416	3.4	1	.00
	1936	12018	23.84	9170	76.3	463	3.8	1	.00
Secondary Schools	1938	4435	9.59	3430	77.4	46	1.0	—	—
	1937	4443	10.08	3380	76.1	55	1.2	—	—
	1936	4503	9.35	3495	77.6	73	1.6	—	—
Special Schools	1938	230	4.9	179	77.8	2	0.9	—	—
	1937	232	3.3	194	83.7	5	2.1	—	—
	1936	219	2.7	180	82.2	12	5.5	—	—
Nursery Schools	1938	923	2.16	673	72.9	34	3.7	—	—
	1937	902	2.37	611	67.7	54	6.0	—	—
	1936	841	1.96	599	71.2	46	5.5	—	—
Grand Totals	1938	17665	40.67	13232	74.9	366	2.1	—	—
	1937	17768	40.23	13214	74.4	530	2.9	1	.00
	1936	17581	35.42	13444	76.5	594	3.3	1	.00

It will be seen from the Table on page 172, showing the attendances at the School Clinics, that the total number (New Cases) found with malnutrition was 2,086. One of these was classified as bad.

An interesting table respecting the nutrition of children at the two Open Air Schools will be found on page 197.

(b) **UNCLEANLINESS.**—During the year 1938 there has been an increase in the percentage of children found unclean at the Routine Inspections. Out of 17,665 children inspected 6 boys and 78 girls were found with uncleanliness of head, 0.47 per cent.; 8 boys and 4 girls with uncleanliness of body, 0.07 per cent. The percentages for 1937 were: uncleanliness head 0.2 per cent., uncleanliness body 0.11 per cent.

The following Table records the findings of the School Medical Officers at the Routine Inspections:—

Code Group	Numbers In- spected	Head				Body			
		Boys	Girls	Total	%	Boys	Girls	Total	%
Entrants ... ..	3504	3	25	28	0.80	3	1	4	0.11
Second Age Group...	3373	—	24	24	0.71	2	2	4	0.12
Third Age Group ...	2856	—	12	12	0.42	—	—	—	—
Other Ages ... ..	929	2	7	9	0.97	1	—	1	0.11
Special Schools ...	230	—	1	1	0.43	1	—	1	0.43
Candidates for Secondary Schools	1415	—	1	1	0.07	—	—	—	—
Secondary Schools...	4435	1	1	2	0.04	—	1	1	0.02
Nursery Schools ...	923	—	7	7	0.76	1	—	1	0.11
Total ... ..	17665	6	78	84	0.47	8	4	12	0.07

At the Special Inspections held at the School Clinics, out of a total of 14,010 children 179 were found with uncleanliness of head (1.29 per cent.), and 36 with uncleanliness of body (0.26 per cent.). These figures include children found at cleanliness inspections in schools and referred to the School Clinic for treatment.

From Table IV Group VI it will be noticed that 1,553 children were found unclean by the Nurses at the cleanliness inspections in schools; of these 210 were cleansed at the School Clinic. The figures for 1937 were 1,529 and 223 respectively.

(c) **MINOR AILMENTS AND DISEASES OF THE SKIN.**—At the Routine Medical Inspections 500 children were found with Skin Diseases and Minor Ailments; of these 465 were referred for treatment and 35 required to be kept under observation.

At the Special Inspections 8,373 children were found, all requiring treatment.

These figures show decreases of 94 found at Routine Inspections and 1,674 at the Special Inspections compared with 1937.

It will be seen from Table IV, Group 1 (excluding Minor Eye and Ear Defects) that 8,521 defects were treated at the School Clinics in 1938 against 10,204 in 1937, a decrease of 1,683.

(d) VISUAL DEFECTS AND EXTERNAL EYE DISEASE.—It will be seen from Table II that 1,070 children were found to require treatment for Defective Vision at the Routine Medical Inspections and 104 children to require treatment for Squint.

At the Special Inspections 3,010 children were referred for treatment for Defective Vision and 102 for Squint.

The total number of children referred for treatment on account of Defective Vision and Squint was 4,286, and it will be noticed from Table IV, Group II, that 3,260 defects were dealt with. The former figure includes cases of repairs to spectacles and accounts for the difference between these two figures. The figures for 1937 were 4,222 referred and 2,892 treated.

139 children were found at the Routine Medical Inspections to be suffering from External Eye Diseases, whilst 588 children were discovered at the Special Inspections held at the School Clinics. These figures make a total of 727 against 885 in 1937.

(e) NOSE AND THROAT DEFECTS.—At the Routine Medical Inspections 2,149 children were found to have Nose and Throat Defects, of whom 1,619 were referred for treatment.

At the Special Inspections 1,319 children were found, of whom 1,307 were referred for treatment.

The figures vary from those of 1937 as follows: Routine Inspections, decrease of 190 cases found. Special Inspections, a decrease of 233 cases found.

It will be noticed from Table IV, Group 3, that 433 children received operative treatment under the Authority's Scheme at the City Hospital and 28 children received operative treatment privately.

These figures vary from those of 1937 as follows: an increase of 32 under the Authority's Scheme and 2 treated privately.

(f) EAR DISEASE AND HEARING.—From the Routine Inspections 176 children were found to be suffering from Ear Disease or Defective Hearing, of whom 157 were referred for treatment and 19 were placed under observation.

At the Special Inspections 689 children were found, of whom 684 were referred for treatment and 5 were placed under observation.

The figures for the Routine Inspections show increases of 3 found and 1 referred for treatment. Special Inspections show a decrease of 135 found and 120 referred for treatment.

(g) DENTAL DEFECTS.—In addition to the inspections carried out by the School Dentists, the Doctors make an examination of each child's mouth at the Routine Inspections. The numbers of children so found with dental defects during the past two years are shown in the following Table:—

1938	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	9075	2922	111	3
Girls ...	8590	3027	115	1
Totals ...	17665	5949	226	4

1937	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	8851	2562	222	1
Girls ...	8917	2791	285	3
Totals ...	17768	5353	507	4

(h) ORTHOPÆDIC AND POSTURAL DEFECTS.—The number of children suffering from crippling defects caused by Rickets, Spinal Curvature, and other deformities, found at the Routine and Special Inspections, are shown in the undermentioned Table compared with 1937.

Defect or Disease	Elementary Special & Nursery Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	For Treat- ment	For Observa- tion	For Treat- ment	For Observa- tion	For Treat- ment	For Observa- tion	For Treat- ment	For Observa- tion
1937 :—								
Rickets ... ..	128	46	8	2	3	13	—	—
Spinal Curvature	233	17	33	12	114	19	18	1
Other Deformities	228	92	41	7	168	68	9	1
1938 :—								
Rickets ... ..	102	28	13	—	10	12	—	—
Spinal Curvature	262	16	38	1	72	25	28	1
Other Deformities	254	67	75	10	167	71	5	

Particulars showing the number of children who have received treatment at the Central School Clinic and the defects for which they were treated will be found on page 175, and those who have received treatment at the Lister Lane School on page 192. A record of the operative work performed at St. Luke's Hospital by the Orthopædic surgeon will be found on page 183. The total number of children shown in Table IV, Group 4, is 489 against 443 in 1937, an increase of 46.

(i) HEART DISEASE AND RHEUMATISM.—At the Routine Inspections during the year 1938, 270 children were found to require treatment, and 10 children were required to be kept under observation on account of Organic Heart Disease.

There were also 101 children (excluding those at the Lister Lane School for Physically Defectives) referred for treatment and 36 for observation from the Special Inspections.

These figures vary from those of 1937 as follows: Routine Inspections show increases of 72 referred for treatment and a decrease of 20 for observation. The Special Inspections show an increase of 63 referred for treatment and a decrease of 1 to be kept under observation.

At the Routine Inspections 56 children were referred for treatment and 12 required to be kept under observation on account of Rheumatism. At the Special Inspections 223 were referred for treatment. These figures show 2 less referred for treatment from Routine Inspections and more referred from Special Inspections.

(j) **TUBERCULOSIS.**—At the Routine Inspections 1 child was found to be suspected of Pulmonary Tuberculosis and was referred for treatment. At the Special Inspections 21 children were suspected of having Pulmonary Tuberculosis and were all referred for treatment. The above figures total 22 against 92 in 1937. Children suspected to be suffering from Tuberculosis are referred to the Anti-tuberculosis Centre where a special clinic is held each Thursday at 9.30 a.m.

There were 8 cases of Non-Pulmonary Tuberculosis found at the Routine Inspections, all referred for treatment. From the Special Inspections 15 cases were found, 14 required treatment and 1 was placed under observation.

These figures record an increase of 1 found at the Routine Inspection and 4 at the Special Inspections.

(k) **OTHER DEFECTS AND DISEASES.**

(1) *Enlarged Cervical Glands (Non-Tubercular).*—At the Routine Inspections 246 children were found with Enlarged Cervical Glands (Non-Tubercular). Of these 166 required treatment and 80 were kept under observation.

At the Special Inspections 297 children were found. 296 of these required treatment and 1 was kept under observation. These figures vary from those of 1937 as follows: a decrease of 103 found at the Routine Inspections and an increase of 6 at the Special Inspections.

(2) *Defective Speech.*—At the Routine Inspections 50 children were found with Defective Speech. Of these 18 required treatment and 32 were kept under observation.

At the Special Inspections 4 children were found, 1 of whom required treatment. These figures record an increase of 7 found at the Routine Inspections.

(3) *Lungs.*—At the Routine Inspections 344 children were found suffering from Bronchitis and other Non-Tubercular Lung Diseases. Of these 310 required treatment and 34 were kept under observation.

At the Special Inspections 1,009 cases were found all requiring treatment.

These figures record decreases of 96 found at the Routine Inspections and 112 at the Special Inspections.

(4) *Nervous System*.—At the Routine Inspections 390 children were found with nervous conditions. Of these 345 required treatment and 45 were kept under observation.

At the Special Inspections 139 cases were found. 132 of these required treatment and 7 were kept under observation.

These figures record an increase of 49 found at the Routine Inspections and a decrease of 108 at the Special Inspections.

(5) *Mental Condition*.—At the Routine Inspections 66 children were found to be abnormal mentally. 5 of these required treatment and 61 were kept under observation.

At the Special Inspections 61 children were found, 15 of whom required treatment and 46 to be kept under observation.

These figures show a net decrease of 46 from those of 1937.

(6) *Infectious Diseases*.—At the Routine Inspections 3 children were found suffering from an infectious disease, all of whom were referred for treatment.

At the Special Inspections 141 cases were found. 131 of these were referred for treatment and 10 were kept under observation.

The figures for the Routine Inspections show 11 less than 1937, and those for the Special Inspections show a decrease of 74 cases found.

(7) *Miscellaneous*.—At the Routine Inspections 758 children were found suffering from other defects and diseases. Of these 643 were referred for treatment and 115 were kept under observation.

At the Special Inspections 2,301 cases were found. 2,289 of these required treatment and 12 were kept under observation.

These record a decrease of 46 found at the Routine Inspections and 98 at the Special Inspections.

6. FOLLOWING UP.—A review of this Authority's system for the following up of children suffering from the various defects, systematic re-inspections, and home visitation by the Nurses, has been given in previous Reports.

The records taken from the Nurses' weekly duty sheets show a decrease of 76 visits to Schools, 20,754 less examinations in Schools,

and an increase of 68 visits to homes. The number of defects discovered by the Nurses in the Schools was 10,480 against 10,360 in 1937, an increase of 120.

(a) RECORD OF VISITS FOR 1938.

(1) Visits to Schools	...	...	...	2351
(2) Children examined	...	...	...	122763
(3) Visits to Homes	...	...	...	979

(b) DEFECTS DISCOVERED.

(1) Malnutrition ...	...	458	(7) Sore Eyes ...	...	232
(2) Uncleanliness (Head)	4561		(8) Defective Vision	...	1770
(3) Uncleanliness (Body)	364		(9) Squint ...	...	217
(4) Ringworm ...	...	11	(10) Running Ears	...	215
(5) Scabies ...	...	78	(11) Infectious Diseases	...	34
(6) Impetigo ...	...	666	(12) Other Conditions	...	1874

7. ARRANGEMENTS FOR TREATMENT.—There are four School Clinics in Bradford, a Central Clinic at 28A Manor Row, and Branch Clinics at Green Lane, Lapage Street and Edmund Street. Under the co-ordination of medical work, arrangements have been made for the treatment of certain defects at places mentioned below:—

- (a) Minor Ailments ... School Clinics.
- (b) Tonsils and Adenoids Special Hospital, Leeds Road.  
(operations)
- (c) Tuberculosis ... Anti-Tuberculosis Centre and Grassington Sanatorium.
- (d) Skin Disease ... School Clinics.
- (e) External Eye Disease School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).
- (f) Vision ... School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).
- (g) Ear Disease and Hearing ... School Clinics and Special Hospital (Leeds Road).
- (h) Dental Defects ... Central School Clinic.
- (i) Crippling Defects and Orthopædics ... Central Clinic, School for Physically Defectives Lister Lane and Municipal General Hospital (St. Luke's).

The cases of defects that have attended the School Clinics since 1908 are shewn in the following table :—

Year	Treated	Examined only on first attendance	Total Attendances	Attendances per week
1908	841	590	4050	122
1909	2323	1325	14516	329
1910	3520	2772	19315	439
1911	5019	2655	20325	462
1912	6279	3095	25579	581
1913	8004	4333	34940	791
1914	13991	4155	46982	1068
1915	12469	2769	43346	985
1916	14559	3552	38051	865
1917	12890	3056	44289	1006
1918	9954	3164	35256	801
1919	16459	4177	44876	1019
1920	22114	5894	61565	1502
1921	25460	6364	75209	1791
1922	23718	4158	71663	1706
1923	20255	4811	71646	1706
1924	23013	6176	76476	1821
*1925	37850	7327	88111	2050
*1926	35007	9352	91477	2178
*1927	34180	8279	99449	2368
*1928	33031	9517	94080	2240
*1929	37613	9937	110333	2627
*1930	31961	7431	123514	2941
*1931	30509	8697	118793	2829
*1932	32512	7526	114397	2724
*1933	33467	4851	107918	2569
*1934	33045	5625	108963	2594
*1935	32138	5812	106946	2546
*1936	32610	6517	109213	2601
*1937	35657	6129	112546	2684
*1938	31588	5926	107561	2561

\* Includes Dental Cases which were not included in the first two columns in previous years. This, of course, duplicates many of the cases, as children often come for both Medical and Dental treatment during the same year.

The following table records the attendances at the School Clinics during 1938 and includes cases referred from School Medical Inspection.

Defects or Diseases	Elementary, Special and Nursery School Children										Secondary School Children							
	New Cases					Old Cases					New Cases				Old Cases			
	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances All Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances All Cases		
Malnutrition ... ..	—	65	2021	2086	—	16	1272	3374	1	1	12	14	—	—	129	143		
Uncleanliness ;—Head ...	—	4	170	174	—	—	201	375	—	—	5	5	—	—	6	11		
Body ... ..	—	—	36	36	—	1	11	48	—	—	—	—	—	—	—	—		
Skin :—Ringworm, Head	—	6	30	36	—	1	356	393	—	—	—	—	—	—	—	—		
Ringworm, Body	—	—	26	26	—	—	86	112	—	—	3	3	—	—	1	4		
Scabies ... ..	—	2	295	297	—	2	1360	1659	—	—	7	7	—	—	27	34		
Impetigo ... ..	—	3	776	779	—	—	3882	4661	—	—	15	15	—	—	69	84		
Other Diseases (Non T.B.)	—	8	775	783	—	4	1916	2703	—	1	76	77	—	—	242	319		
Eye.—Blepharitis ...	—	4	163	167	—	—	510	677	—	—	2	2	—	—	10	12		
Conjunctivitis ...	1	1	154	156	—	1	468	625	—	—	12	12	—	—	31	43		
Keratitis ... ..	—	1	3	4	—	—	5	9	—	—	—	—	—	—	—	—		
Corneal Ulcers ...	—	—	7	7	—	—	52	59	—	—	—	—	—	—	—	—		
Corneal Opacities	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Defective Vision	60	712	2356	3128	47	559	3563	7297	24	80	662	766	13	59	869	1707		
Squint ... ..	2	33	19	54	—	1	4	59	—	—	—	—	—	—	—	—		
Other Conditions	1	15	262	278	1	—	282	561	1	1	11	13	—	—	7	20		
Ear.—Defective Hearing	1	4	43	51	1	3	55	120	—	—	1	1	—	—	1	2		
Otitis Media ...	—	5	470	475	1	5	5449	5930	—	—	14	14	—	2	162	178		
Other Ear Diseases	—	5	211	216	—	6	164	386	—	—	17	17	—	—	35	52		
Nose and Throat :—Enlarged Tonsils	1	89	235	328	—	30	1357	1715	—	1	11	12	—	1	28	41		
Adenoids ... ..	1	12	6	19	—	2	18	39	—	—	—	—	—	—	—	—		



In addition to the attendances recorded in the preceding Table the following Medical Inspections were also conducted at the School Clinics:—

(1) Children examined as to their suitability for admission to Secondary Schools	...	...	...	...	...	1415
(2) <i>Re</i> Bursarships	...	...	...	...	...	11
(3) From College of Art and Crafts (Routine Medical Inspection)	...	...	...	...	...	84

The following Table shows the examinations made in connection with Special Schools, transference to Convalescent Homes, employment of children and continued attendance at School. These have been analysed under the defects found, or no defect found, and are all included in the previous Table.

Object of Examination	Number of Children	Total Attendances
Transference to Special Schools :—		
Mentally Defective and Epileptic	9	9
Blind, Deaf and Cripple	101	105
Thackley and Odsal Open-Air Schools	805	807
Continued attendance at Infants', Secondary and Special Schools :—		
Elementary Schools	9	9
Infants' Schools	5	5
Secondary Schools	3	3
Blind Schools	3	7
School for Partially Sighted Children	23	24
Open-Air Schools (Thackley and Odsal)	93	94
Lister Lane School for Physically Defectives	43	44
Margaret McMillan School for Mentally Defectives...	1	1
Bolton Royd Deaf School	7	7
Epileptic Schools	2	2
Nursery Schools	1	1
Employment at Theatres...	120	138
Certificates for Trades (Printing etc.)	3	3
Employment out of School	339	343
Examinations for Remand Home	27	29
<i>Re</i> Visits to France	40	40
Convalescent Homes	670	695
Totals	2304	2366

Of the 670 children examined *re* transference to Convalescent Homes, 604 were for Craig Home, Morecambe, and 66 were for the Charity Organisation Society.

The examinations shown in the above Table show increases of 40 children and 55 attendances compared with 1937.

### EXCLUSIONS FROM SCHOOL.

During the year 14678 exclusion notices have been issued from the following Centres, compared with 17,596 in 1937:—

	1938	1937
Central School Clinic ... ..	1218	1268
Green Lane Clinic ... ..	953	1249
Lapage Street Clinic ... ..	2280	2675
Edmund Street Clinic ... ..	1292	1207
Health Visitors, Edmund Street ... ..	5172	5775
Special Hospital, Leeds Road ... ..	373	333
Anti-Tuberculosis Centre ... ..	127	134
Lister Lane School for Physically Defectives ... ..	54	49
Health Department ... ..	3209	4906
Totals ... ..	14678	17596

### MEDICAL GYMNASTICS AND MASSAGE.

This treatment is carried out at the Central School Clinic and Lister Lane School for Physically Defectives.

The following table gives the number treated at the Central School Clinic:—

Cases treated and discharged cured ... ..	316
Cases treated and discharged improved ... ..	63
Cases treated and referred to Lister Lane School for Physically Defectives and Open-air Schools for completion ... ..	1
Cases treated who left School (over age) before treatment was completed ... ..	5
Cases withdrawn from treatment by parents before completion ... ..	19
Cases treated and carried forward to 1939 for continued treatment ... ..	73
Total number of cases treated ... ..	477

	Boys	Girls	Total
Total number of attendances ... ..	1917	2935	4852

## Classification of the 477 cases treated :—

Disease	Number	Disease	Number
Scoliosis ... ..	44	Recent Injuries ... ..	31
Kyphosis ... ..	99	Post Tonsillectomy Cases ...	180
Chest Deformities ...	13	Rheumatism ... ..	5
Foot Deformities ...	75	Torticollis ... ..	1
Rickets ... ..	7	Post Congenital Hip	
Paralysis ... ..	16	Deformity	3

The above figures show a decrease of 1 treated and an increase of 370 attendances compared with 1937.

## RINGWORM OF THE HEAD AND X-RAY TREATMENT.

From Table II (Elementary, Special, Nursery, and Secondary Schools) it will be observed that 36 cases of Ringworm of the Head were referred for treatment, a decrease of 6 compared with 1937. No X-ray treatment was carried out.

## PROVISION OF SPECTACLES.

It will be noticed from Table IV, Group II, that most of the Spectacles were provided by the Authority.

A contract is made by the Education Authority with a local Optician for the supply of Spectacles at a reduced rate.

It will also be seen from Table IV, Group II, that during the year 2,326 children were supplied with spectacles by this Authority, against 2,257 in 1937, an increase of 59.

Of the 2,326 supplied, in 2,069 cases parents paid the full cost, 113 pairs were for the children at the Partially Sighted School, where Spectacles are supplied, free of charge, as part of the treatment, and in 101 cases the cost of the spectacles was remitted by the Committee after a full inquiry had been made into the family circumstances. In 43 cases the accounts were carried forward to the year 1939.

In addition to these, 394 pairs of spectacles were repaired, or in some cases second pairs of spectacles were provided for the children at the Partially Sighted School, and 2,076 repairs or second pairs for children attending ordinary schools were supplied; of the latter, 1,982 were paid for by the parents; in 50 cases the cost was remitted by the Committee, and 34 cases were carried forward. These make a total of 4,796 pairs of spectacles supplied during the year, against 3,781 in the year 1937.

Artificial eyes were supplied to two children the cost being paid by the parents.

### ULTRA VIOLET RAYS TREATMENT.

Ultra Violet Rays treatment is given at the Central School Clinic. During the year 1938, 943 children received this treatment. 586 cases were completed, 99 cases were treated but for various reasons failed to complete the course, and 258 cases were carried forward to 1939. Of the 586 cases completed, 131 received other forms of treatment and 455 cases received artificial sunlight only. The children made 15,120 attendances for treatment. The number of children treated in 1937 was 833.

A short dose is given at the first attendance, and this increased gradually to a maximum of five minutes. Each child receives two doses per week, so that the average number of doses is twice the average of treatment in weeks.

The following Tables give particulars of treatment and the results:—

# CASES TREATED BY ARTIFICIAL SUNLIGHT ONLY.

Defect	Number of Children	Average number of weeks	Minimum number of weeks	Maximum number of weeks	Number of exposures					Signs of improvement noted by the Medical Officer					Result of treatment			
					Minutes					Temperature	Energy	Sleep	Nutrition	Haemo-globin	Condition Cleared	Condition improved		
					1	2	3	4	5							Much	Slight	No change
Anæmia ... ..	199	11.8	7.0	20.0	204	213	256	255	3853	59	160	128	85	198	70	120	9	—
Anæmia and Malnutrition	5	12.6	12.0	13.5	5	7	7	7	100	2	4	4	4	5	2	2	1	—
Anæmia and Chorea	3	9.6	9.0	11.0	3	3	4	4	44	2	2	2	2	3	1	2	—	—
Anæmia and Bronchitis	2	14.2	12.5	16.0	2	2	4	3	46	—	1	1	2	2	—	2	—	—
Anæmia and Bronchial Catarrh	1	11.5	—	—	1	1	1	1	19	—	1	1	—	1	—	1	—	—
Anæmia and Asthma	1	11.5	—	—	1	1	1	1	19	—	1	1	—	1	1	—	—	—
Anæmia and Debility	2	11.0	—	—	2	2	2	2	36	1	1	1	1	1	1	—	1	—
Anæmia and Adenitis	2	12.5	12.0	13.0	2	2	4	4	38	2	2	2	—	2	1	1	—	—
Malnutrition	32	11.3	5.5	23.5	32	40	49	50	554	9	27	20	25	32	7	21	4	—
Debility ... ..	65	11.5	7.0	20.0	64	68	96	96	1198	23	57	43	31	64	20	38	7	—
Bronchitis ... ..	34	12.0	7.0	17.0	34	39	54	52	643	3	30	21	17	34	7	25	2	—
Bronchial Catarrh	10	11.7	8.5	13.0	10	11	17	17	181	2	8	5	5	10	3	7	—	—
Asthma ... ..	10	14.3	10.0	22.5	10	11	15	15	228	2	8	6	7	10	2	8	—	—
Chorea ... ..	7	11.5	7.5	16.0	7	7	9	8	145	2	6	4	3	7	2	5	—	—
Anorexia ... ..	17	12.3	11.0	15.0	17	17	20	20	347	5	13	13	6	17	4	11	2	—
Nasal Catarrh	2	12.2	12.0	12.5	2	2	2	2	41	1	2	1	1	2	—	2	—	—
Rickets ... ..	7	11.4	8.5	14.5	7	10	11	10	121	3	7	3	6	7	—	7	—	—
Acidosis ... ..	2	12.5	—	—	2	2	5	5	36	—	2	1	2	2	1	1	—	—
Alopecia ... ..	8	12.6	10.0	15.0	8	8	8	8	167	3	6	3	1	9	3	5	—	—
Rheumatism	11	12.4	10.0	17.0	11	11	12	12	229	4	11	6	6	11	4	7	—	—
Overstrain ... ..	31	11.7	7.5	17.0	31	33	42	43	573	9	27	21	16	31	7	22	2	—
Psoriasis ... ..	3	12.8	11.0	15.0	3	3	4	6	60	—	3	2	—	3	—	3	—	—
Otorrhœa ... ..	1	11.5	—	—	1	1	2	2	17	1	1	—	1	1	—	1	—	—

# CASES TREATED BY ARTIFICIAL SUNLIGHT AND OTHER FORMS OF TREATMENT.

Defect	Number of Children	Average Number of Weeks	Minimum Number of Weeks	Maximum Number of Weeks	Number of exposures					Signs of improvement noted by the Medical Officer					Result of treatment		
					Minutes					Temperature	Energy	Sleep	Nutrition	Hæmoglobin	Condition Cleared	Condition improved	
					1	2	3	4	5							Much	Slight
Anæmia ... ..	46	11·9	8·0	15·5	46	53	63	64	868	15	41	32	14	44	10	34	2
Anæmia and Rheumatism ... ..	1	11·5	—	—	1	1	1	1	19	—	1	1	1	1	—	1	—
Anæmia and Chorea ... ..	1	12·5	—	—	1	1	1	1	21	1	1	1	—	1	1	—	—
Anæmia and Bronchitis ... ..	2	11·0	10·5	11·5	2	3	4	4	31	1	2	1	1	2	—	2	—
Malnutrition ... ..	11	12·4	10·5	14·0	11	12	15	15	220	2	8	5	10	9	4	5	2
Debility ... ..	31	12·0	9·5	14·0	31	32	38	39	561	8	28	23	10	30	10	19	1
Bronchitis ... ..	12	12·7	10·0	14·5	12	15	15	15	248	1	10	7	3	12	2	9	—
Bronchial Catarrh ... ..	7	12·2	11·0	15·0	7	9	11	12	132	2	5	3	1	7	2	3	2
Asthma ... ..	1	12·0	—	—	1	1	1	1	20	1	1	—	1	1	—	1	—
Rheumatism ... ..	3	11·3	11·0	12·0	3	3	3	3	56	1	3	3	1	3	1	1	1
Overstrain ... ..	8	11·7	10·0	13·0	8	8	11	11	149	1	8	7	4	7	—	8	—
Enlarged Cervical Glands ... ..	1	12·5	—	—	1	1	1	1	22	1	1	1	—	1	1	—	—
Anorexia ... ..	4	11·7	10·5	13·0	4	5	5	5	75	3	4	3	1	4	4	—	—
Acidosis ... ..	1	12·0	—	—	1	1	1	1	20	1	1	1	1	1	—	1	—
Alopecia ... ..	1	11·0	—	—	1	1	1	1	18	—	1	1	—	1	1	—	—
Adenitis ... ..	1	15·5	—	—	1	1	3	3	23	1	1	1	—	1	1	—	—

# CASES WHO RECEIVED ARTIFICIAL SUNLIGHT, BUT FAILED TO COMPLETE COURSE.

Defect	Number of Children	Minimum Number of Weeks	Maximum Number of Weeks	Average Number of Weeks	Number of Exposures					Reason for discontinuance of treatment									
					Minutes					Admitted to Hospital	Left the District	Decline further treatment	No Guide for Patient	Financial Inability	Admitted to Sanatorium	Admitted Open Air School	Left School	Admitted P.S. School	Unsuitable U.V.R.
					1	2	3	4	5										
Anæmia...	40	3·5	12·0	6·2	40	46	50	50	317	1	3	15	10	3	2	5	1	—	—
Anæmia and Malnutrition	2	5·0	5·5	5·25	2	2	3	3	11	—	—	1	1	—	—	—	—	—	—
Malnutrition	5	6·5	10·5	8·9	5	5	7	7	65	—	—	1	—	—	—	3	—	1	—
Debility...	19	3·5	13·0	6·1	19	21	24	24	145	1	3	7	3	—	1	3	—	—	1
Bronchitis	7	2·0	8·5	5·3	7	7	9	9	42	1	1	3	1	—	—	—	—	—	1
Bronchial Catarrh	4	4·0	7·5	5·6	4	4	4	4	29	—	1	2	1	—	—	—	—	—	1
Asthma ...	3	3·0	7·0	5·2	3	5	5	5	13	1	—	1	1	—	—	—	—	—	—
Enlarged Cervical Glands	1	3·0	—	—	1	1	1	1	2	—	—	1	—	—	—	—	—	—	—
Overstrain	2	4·0	6·5	5·2	2	2	2	2	13	—	—	—	2	—	—	—	—	—	—
Rickets ...	3	8·0	11·0	9·3	3	4	5	5	39	—	3	—	—	—	—	—	—	—	—
Alopecia	3	2·5	5·5	4·0	3	3	3	3	11	—	—	3	—	—	—	—	—	—	—
Chorea ...	1	1·5	—	—	1	1	1	1	—	—	—	—	—	—	—	1	—	—	1
Adenitis	3	3·0	9·5	5·8	3	3	3	3	23	—	—	—	2	—	—	—	—	—	—
Rheumatism	2	4·5	9·0	6·7	2	2	2	2	19	—	—	1	—	—	—	1	—	—	—
Rheumatism and Bronchitis ...	1	2·5	—	—	1	2	1	1	—	—	—	—	—	—	—	1	—	—	—
Nasal Catarrh	1	5·5	—	—	1	1	1	1	7	—	—	—	1	—	—	—	—	—	—
Anorexia	1	8·0	—	—	1	2	2	2	9	—	—	1	—	—	—	—	—	—	—
Psoriasis	1	6·5	—	—	1	1	2	2	7	1	—	—	—	—	—	—	—	—	—

## DENTAL REPORT.

By H. V. MORRELL, L.D.S.

As in former years dental inspection and treatment has been carried out for children attending the Schools of the City. During the year under review the following inspections have been completed:—

- (a) 13,058 Routine Inspections in the Elementary Schools; 6,363 Special Inspections of Elementary School Children at the Central Clinic.
- (b) 2,938 Routine Inspections in the Secondary Schools; 824 Special Inspections of Secondary School children at the Central Clinic.
- (c) 81 Inspections of Nursery School children.
- (d) 406 Inspections of Special Schools children.

The total number of children thus inspected was 23,670. Of these 15,949 were found to require treatment, 10,318 received treatment at the Clinic and made 12,181 attendances for this purpose.

An important feature is the large number of Secondary School children who have been treated at the Clinic, and as in the previous year many of these scholars who are leaving school have presented themselves at the Clinic desiring certificates of dental fitness before entering the Civil Service, Training Colleges, etc.

As a general rule we try to complete treatment at one visit, but during the year we have made considerable progress amongst the older children in the High Schools, hence the increase in the number of further appointments.

A brief summary of the work shows that 2,919 fillings were completed, 5,334 permanent teeth extracted, and 15,469 temporary teeth extracted. Other operations which number 259 include a variety of conditions: scaling and cleaning, treatment of gum conditions, silver nitrate treatment, and dressings after hæmorrhage. Cases of severe bleeding after tooth extraction are fortunately rare; during the year seven of these cases have been dealt with, and one was referred to St. Luke's Hospital for observation.

An anæsthetic is always used for the extraction of teeth and most of the extractions were carried out under general anæsthesia, nitrous oxide being administered in 6,462 cases. The remaining extractions were completed under local anæsthesia.

During the year we have treated 81 orthodontic or regulation cases for children suffering from irregularities of the teeth, the most

common being misplaced upper canines. The treatment in every case has been satisfactory and there has been a marked improvement in the appearance of the children.

The number of special cases attending during the year has been well maintained and it is pleasing to know that many of these patients are very young children who in many cases have only just commenced school and the parents believe in bringing them to the Clinic as part of the ordinary school routine.

The usual propaganda has been carried out during the year, e.g. chair-side talks to parents at the Clinic, brief chats to the children at the time of inspection, film displays in two of the senior schools, the distribution of pamphlets issued by the Dental Board on "The Care of the Teeth" to scholars on leaving school, and in addition this year the Dental Board kindly arranged, with the co-operation of the Head Teachers, for demonstrations in selected Senior Boys' and Girls' Schools. Short lectures were given followed by demonstrations of models and charts bearing on the care of the teeth.

It is gratifying to know that many parents and guardians are constantly reporting that there is a great improvement in the general health of the children after receiving dental treatment.

### SPECIAL OPHTHALMIC CASES.

Record of Cases seen by W. OLIVER LODGE, M.D., F.R.C.S.

Cases are referred by the School Medical Officers to the Ophthalmic Surgeon at the Ophthalmic Clinic, Edmund Street. Cases requiring operations or hospital treatment are dealt with at St. Luke's Hospital.

					<i>Child- ren</i>	<i>Attend- ances</i>
1.	Total cases from all sources seen at Special Ophthalmic Clinic	...	...	...	303	378
2.	Total cases referred from School Clinics seen at Special Ophthalmic Clinic	...	...	...	146	173
	(a) Defective Vision and Squint	...	...	...	139	163
	(b) External Eye Diseases	...	...	...	7	10
3.	Total cases under 5 years (from Nursery Schools, etc.) seen at Special Ophthalmic Clinic	...	...	...	145	191
	(a) Defective Vision and Squint	...	...	...	132	174
	(b) External Eye Diseases	...	...	...	13	17
4.	Total cases referred from Partially Sighted School seen at Special Ophthalmic Clinic	...	...	...	12	14
	(a) Defective Vision and Squint	...	...	...	12	14
	(b) External Eye Diseases	...	...	...	—	—

5. In-patients (St. Luke's Hospital) admitted from Special Ophthalmic Clinic	...	...	...	81
--	-----	-----	-----	----

Operations for :—

(a) Strabismus	...	...	...	...	26
(b) Other diseases	...	...	...	...	55

## ORTHOPÆDIC CASES.

By Mr. F. W. GOYDER, M.B., F.R.C.S., Consulting Orthopædic Surgeon

LISTER LANE SCHOOL.—The Orthopædic Surgeon has attended at this school on 39 occasions and has made 342 examinations. 20 new orthopædic children have been admitted to the school. There has again been a slight diminution in the number of new admissions, especially to the Nursery Department. This department is specially well fitted for the treatment of small children with rickets, as the regimen and the remedial treatment causes so much improvement in the deformity and in the general health of the children that operation is frequently avoided.

16 children have been referred to St. Luke's Hospital for X-ray examinations; these were mainly cases of old tuberculous joint lesions. 11 were admitted as in-patients for operative treatment. Of these, 2 had operations for relapsed talipes, three for infantile palsy, three for spastic paralysis, one for muscular atrophy, one for tuberculous abscess, and one for a ganglion of the wrist.

ST. LUKE'S MUNICIPAL HOSPITAL.—Once a week at this hospital the Orthopædic Surgeon sees orthopædic cases. Although adults are seen there, the children number more than three times the adults. Both from the School Clinics and the Child Clinic the numbers have increased in the past year; there were 52 from the former and 32 from the latter source, the total number of examinations made in the case of children being 325.

The adults are interesting because many of them were under treatment while of school age either at Lister Lane School or at this Hospital, and crippled children, as they leave school, are always told that treatment and advice is available at this Clinic. Like the other out-patients' departments at this hospital, it is purely consultative, hence its scope is limited by the fact that massage and remedial treatment can be given to former in-patients only, so the Orthopædic Surgeon has often to rely for treatment on other branches of the School Medical Services, mainly the Central Clinic and Lister Lane School.

Children of pre-school age, especially those with deformities due to rickets, go to one or other of these, but there is still a percentage of parents who do not avail themselves of these facilities.

Operations have been done on 81 in-patients of the Hospital, 31 being manipulations for deformities, 40 major operations and 10 minor operations.

8. INFECTIOUS DISEASES.—Instructions are issued to Head Teachers of all Schools in a "Vade-Mecum concerning Infectious Diseases." No scholar or teacher shall attend school while suffering from any disease regarded as infectious or contagious. A teacher who suspects that any scholar in school is suffering from any infectious or contagious disease shall at once report to the Head Teacher who, if satisfied that there are reasonable grounds for suspicion, shall temporarily exclude from school the affected child or children, report the reason to the parent, and notify the exclusion to the School Medical Officer on forms provided. In all cases that warrant an inquiry a Nurse is sent to the School to examine the children, take throat, nose, or ear swabs of any suspected cases and take any other precautionary action that may be necessary, such as excluding children suspected of the disease, etc. By this method, in cases of diphtheria or scarlet fever, the cause of the spread of infection is very often found. In some cases the schools are visited by the Assistant School Medical Officers. In cases considered necessary, classrooms or schoolrooms are fumigated.

During the latter part of the year 1936 increased activities were inaugurated against the spread of diphtheria and scarlet fever; arrangements were made whereby a daily list of children, notified to the Medical Officer of Health to be suffering from these diseases, be forwarded to the School Medical Department. Action is then taken as quoted above.

Notifiable Infectious Diseases are all notified to the Medical Officer of Health by Assistant School Medical Officers and Private Practitioners. All cases notified to the Medical Officer of Health are visited by the Health Visitors, or Sanitary Inspectors, who give advice to parents and guardians of children, respecting the care of the patient and the welfare of those in contact with the disease, and take steps, in cases necessary, for the removal of children to hospital. The Health Visitor also issues a notice excluding the patient and those in contact from attendance at School. During the year 5,172 exclusion notices were issued by the Health Visitors, a decrease of 603 from the year 1937.

In cases visited by the Sanitary Inspectors on account of Scarlet Fever, Small-Pox, or other fevers, exclusion notices are also issued by the Medical Officer of Health for children suffering, or children who may have been in contact with those suffering from the disease. 3,209 notices were issued by the Medical Officer of Health, a decrease of 1,697 from 1937.

During the year 35 schools where the percentage of average attendance was under 60 were granted certificates of cancellation of attendances in accordance with the Board of Education Regulations, aggregating to 113 weeks, compared with 18 schools and 59 weeks during the year 1937.

## 9. OPEN-AIR EDUCATION.

(a) *Playground Classes*.—The only classes which are regularly held in playgrounds are those of physical training, but in favourable weather other classes are frequently held out of doors.

(b) *School Journeys*.—During the spring and summer months children are taken journeys to the outskirts of the city and given instruction in Nature Study, Botany, etc. Classes are also taken into the Parks and Recreation Grounds for one lesson per week, excepting when the weather is unfavourable.

(c) *School Camps*.—There are no Camp Schools under this Authority. No schools were kept open during the summer holidays under Camp School arrangements.

(d) *Open-Air Classrooms in Public Elementary Schools*.—Open-Air Classrooms are in use in all the Special Schools, excepting the Deaf School; also in the Nursery Schools, 7 Infants' Schools, and 1 Primary and Infants' School.

## 10. PHYSICAL EDUCATION.—By FRANCIS J. C. MARSHALL, Inspector and Organiser of Physical Education.

The progress made in Physical Education continues to be satisfactory and no little credit is due to the Head Teachers and their staffs on their efforts towards the development of the physical education of their scholars on sound lines. It is urged, however, that increased attention should be given to the need for "carrying over" the postural training from the physical training lessons to the other work of the school. Unless good posture is insisted upon at all times during the school life of the child until it becomes an ingrained habit, much of the value of sound physical education is lost.

The provision of fully equipped gymnasia with adequate changing and shower-bath accommodation is still a very urgent requirement. This is particularly so in the case of the Secondary Schools where the work of a very competent and highly qualified staff of specialists is very seriously handicapped by present conditions and the attainment of completely satisfactory results thus made very difficult.

Swimming continues to make very satisfactory progress. Indeed, the demands upon the present facilities are so great that further provision to satisfy the requirements of the Board of Education in respect of the Secondary Schools seems to be indicated.

The care and maintenance of the School Playing Fields is still a matter of considerable concern. Trespass on the part of the general public together with the interference with the conduct of activities makes the enclosure of these grounds a very urgent necessity.

The enthusiasm and keenness on the part of the teachers for the physical well-being of their scholars show no sign of abatement. In and out of school, much time and thought are given to the work. Their many activities, as shown by the numerous sub-sections of the Bradford Schools Athletic Association, deserve not only the highest praise and commendation but the gratitude of the whole City.

11. PROVISION OF MEALS.—The number of “necessitous” children receiving school meals increased from 2,362 on 1st January to 2,876 on 31st December, an increase which must be attributed mainly to trade conditions.

The following figures, taken for the week ended 19th December, 1938, show the number of children provided daily with dinners from the Cooking Depot:—

Elementary Schools “Necessitous” Cases	Special Schools	Nursery Schools	No. of Meals provided on payment of Full Cost	Total
2350	826	513	988	5177

During the financial year ended 31st March, 1938, dinners were provided as follows:—

(1) From Cooking Depot.								<i>Dinners.</i>
(a)	For necessitous children	...	...	...	...	...	...	521,827
(b)	Meals supplied on payment of Full Cost	...	...	...	...	...	...	180,748
(c)	For children attending Special and Nursery Schools	...	...	...	...	...	...	289,167
(d)	For children attending High Schools (at Full Cost)	...	...	...	...	...	...	22,247

(2) By Caterers.								
(a)	For necessitous children	...	...	...	...	...	...	117
(b)	Meals supplied on payment of full cost	...	...	...	...	...	...	18
								<u>1,014,124</u>

AVERAGE COST PER MEAL	...	...	...	...	...	...	...	3.37d.
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The School Medical Staff has continued to examine children for whom school meals are desired, and during the year applications in respect of 2,724 children have been dealt with.

Careful attention has been given to the dietary by the School Medical Officer and the preparation and service of the meals are constantly supervised.

During the year 430,086 bottles of milk were supplied free to children eligible for free meals, an average of 2,108 per day.

Milk and other beverages have also been provided under arrangements made by Head Teachers for the children of those parents who are willing to pay.

12. CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.—Parents are invited to attend the Routine Medical Inspection of their children in both Elementary and Secondary Schools, and all medical examinations at the School Clinics.

The percentage of parents present at the Routine Medical Inspections will be found in the following table:—

Group	BOYS			GIRLS		
	Number of Children Examined	Number of Parents Present	Percentage of Parents Present	Number of Children Examined	Number of Parents Present	Percentage of Parents Present
Entrants ... ..	1840	1583	86·0	1664	1472	88·4
Second Age Group	1739	1334	76·7	1634	1321	80·8
Third Age Group...	1388	476	34·3	1468	869	59·2
Other Ages ... ..	435	276	60·3	494	376	76·1
Candidates for Secondary Schools	740	616	83·2	675	616	91·3
Secondary Schools	2358	50	2·1	2066	775	37·4

The School Medical Officer is much indebted to the teachers for the help given at the Routine Inspections, for cases referred to the School Clinics, for reporting outbreaks of infectious disease amongst scholars and sending reports on special cases. In return the School Medical Department does everything possible to arrange the School Medical Inspections at such times and periods as will least interfere with the educational work of the Schools.

The influence of the Head Teachers with the parents helps the attendance of children at the School Clinics for both medical and dental purposes and the teachers' special knowledge of the children and their environment is very helpful to the Nurses in "following up."

There is as much co-operation as possible between the School Attendance Department and the School Medical Department in all cases of children requiring medical attention, securing the attendance

of children at the School Clinics, assistance in following up cases, changes in addresses and schools of children, etc. The School Attendance Officers also assist in the collection of accounts outstanding for medical and dental treatment and in cases where the parents have failed to pay for spectacles supplied to children at the School Clinics.

The help given by the Bradford Cinderella Club in providing children referred to them by the Medical Staff with the necessary clothing and boots, also by sending children to the Ambler Home, Morecambe, has been much appreciated.

The Guild of Help visitors have also assisted the School Medical Service by referring cases to the School Clinics, and by giving them information obtained during their visits to homes.

The Charity Organisation Society has also assisted the School Medical Service in helping cases referred to them by the School Medical Officers, and also by sending children to Holiday Homes and Convalescent Homes.

During the year many cases of neglected children have been brought to the notice of the Inspectors of the National Society for the Prevention of Cruelty to Children with beneficial results to the children concerned. The Inspectors have also visited cases where the parents have refused to obtain necessary medical attention prescribed by the School Medical Offices, a help which is very much appreciated.

### 13. BLIND, DEAF, DEFECTIVE and EPILEPTIC CHILDREN.

(a) The methods adopted for ascertaining and dealing with children who are defective within the meaning of Part V of the Education Act, 1921, are as follows:—

The majority of cases are found during the Routine Inspections in the Schools and the Special Inspections at the School Clinics. Others are referred by Head Teachers and School Attendance Officers. Many of the cripples are found by the Orthopædic Specialist at the Municipal General Hospital (St. Luke's). Whenever a case is found, or referred a special appointment is made for the child to be medically examined at the Central School Clinic by the Chief Assistant School Medical Officer, who makes all recommendations to the Local Education Authority for admission to the various Special Schools in the City.

(b) All Mentally Defective children of school age, whether in attendance at Special Schools or not, are placed under the supervision of a Voluntary Care Committee, whose visitation continues until the children concerned leave the Special School on reaching the legal leaving age of 16 years, or, as occurs in some few cases, until they are certified by the School Medical Officer to be incapable of receiving

further benefit there. In both instances, under Section 2 (2a) or (2b) of the Mental Deficiency Act, 1913, the children are notified to the Local Mental Welfare Committee, which has voluntary workers undertaking the visitation of such persons at regular intervals, and the reports of these visitors are presented to the Committee not less than twice a year. These children also attend the School Clinic, at periods named by the Certifying Officer, for re-examination, or are visited at their homes by the Medical Officer.

In the case of Physical Defectives, these are similarly visited during the course of their school life, and if any of the children are reported by the School Medical Officer to be fit to attend an ordinary Elementary School, they are visited for two years whilst in attendance at such school.

On the other hand, children who leave between the ages of 14 and 16 years are visited for 10 years afterwards. The records in this connection are tabulated periodically.

The Education Committee, after consultation with the Blind Persons' Act Committee, arrange for the vocational training of Blind Persons over 16 years of age. When these children leave the Special Schools they are visited and kept under the supervision of the Special Schools' Sub-Committee.

Reports from the Voluntary Committee respecting the after-care of children who have left the Special Schools are issued periodically.

### (c) General Review of the Special Schools:—

#### 1.—THE SCHOOL FOR PARTIALLY SIGHTED CHILDREN.

The School at Daisy Hill is self-contained, exceedingly well lighted, and is of the open-air type. It was specially built for short-sighted children. It is situated in a six-acre field sloping towards the south. The accommodation is 178. The functions of the school are open-air life, avoidance of excessive eye effort, and frequent re-examination. Children remain in the school, on an average, just under three years. The children stay at the school all day and their meals are sent from the Green Lane Cooking Depot.

The numbers of children in attendance at the school during the year were as follows:—

		Boys.	Girls.
Number on Register 1st January, 1934...	...	57	73
Number admitted during the year	...	20	22
Number discharged during the year	...	13	16
Number on Register 31st December, 1938	...	61	79

6 children from other towns are in attendance at the school.

Children who have left during the year:—

					Boys.	Girls.
1.	Left the City ...	...	...	...	—	2
2.	Certified fit for Ordinary School ...	...	...	...	2	1
3.	Went to work at 14 years of age ...	...	...	...	8	8
4.	Went to work at 15 years of age ...	...	...	...	1	—
5.	Went to work at 16 years of age ...	...	...	...	2	2
6.	Transferred to Blind School ...	...	...	...	—	1
7.	Transferred to Grassington Sanatorium ...	...	...	...	—	1
8.	Not Educable ...	...	...	...	—	1
					—	—
	Totals ...	...	...	...	13	16

It will be seen from the above figures that 42 children were admitted during the year. The number discharged during the year was 29 and the average number discharged for the nine years previous was 40.

In addition to the 143 children on the register of the School at the end of December, 1938, it will be noticed from Table III at the end of the Report that there were 8 children attending Public Elementary Schools.

## (2) THE DEAF SCHOOL.

Particulars respecting the site, surroundings, and buildings were given in the 1930 report. The accommodation for deaf children is 45. The Children stay at the school all day and their meals are sent from the Green Lane Cooking Depot.

The Teaching Staff consists of the Head Teacher and four assistants. In addition, a teacher of boot-repairing attends one half day per week, the elder boys attend a Manual Centre one half day for wood and metal work and the elder girls attend a Housewifery Centre one day per week. There are three classes of deaf children, i.e. children who have not sufficient hearing to acquire language thereby. For these the acquisition of language is the most important item in the curriculum and along with it speech and lip-reading. Arithmetic, various kinds of handwork, and the usual physical training are taken as in hearing schools. The other school subjects follow as language develops.

The hard-of-hearing are in a class by themselves. They have, or have had, sufficient hearing to acquire language naturally and their educational needs are very different from those of the born-deaf.

A binaural hearing instrument with twelve pairs of moving coil earphones has been installed and is proving very useful, not only to

the hard-of-hearing, but also to many of the deaf. Many of the latter have small remnants of hearing, possibly only a few vowel sounds may be distinguished at a high amplification, or there may be only an appreciation of noise. Even this helps to increase the sense of rhythm and gives more life and natural quality to the speech.

A separate class for aphasic children has been formed. All these children can hear but need special training in speech, and in some cases, though language is appreciated its composition is a very great difficulty.

The numbers of children in attendance at the school during the year were as follows:—

Number on register 1st January, 1938	...	...	...	53
Number admitted during the year	...	...	...	6
Number discharged during the year	...	...	...	6
Number on register 31st December, 1938	...	...	...	53

1. Bradford children:—

(a) Totally Deaf	...	...	...	...	...	25
(b) Partially Deaf	...	...	...	...	...	12
(c) Aphasic	...	...	...	...	...	14

2. Children from other towns:—

(a) Totally deaf	...	...	...	...	...	1
(b) Partially deaf	...	..	..	..	..	1

Children who have left during the year :—

1. Transferred to Hearing Schools	...	...	...	1
2. Went to work at 16 years of age	...	...	...	2
3. Went to work at 15 years of age	...	...	...	1
4. Went to work at 14 years of age	...	...	...	1
5. Transferred to Deaf Institution	...	...	...	1

Total ... 6

(3) LISTER LANE SCHOOL FOR PHYSICALLY DEFECTIVE CHILDREN.

This is a special school for children who are so incapacitated, principally on account of deformity or cardiac disease, that they are unable to benefit from education in an ordinary Elementary School.

Motor ambulances are provided for the conveyance of children unable to travel by the ordinary means of transport. Special chairs and couches are available in the class-rooms.

The School is designed on open-air lines with ample window space and playing grounds. The main block is orientated to get the maximum amount of sun. The children stay all day at school, their dinners being sent from the Green Lane Cooking Depot. Additional milk puddings are prepared in the School Kitchen, where also the girls get cookery lessons. The children rest for an hour on canvas stretchers after their dinners.

In January, 1930, accommodation for Nursery children (2 to 5 years) was provided at this School in order that Crippled children might

have early treatment and training. This has already resulted in the transference of many cases to ordinary Schools within a few years. Other children are admitted on attaining School age, or later, and stay until 16 years of age.

The Medical Staff consists of a Nurse and three Masseuses, who are employed whole-time, the Medical Officer, who visits one half-day a week, and a Consulting Orthopædic Surgeon, who also visits one half-day a week. Massage, remedial exercises, baths and electricity form part of the routine treatment. Cellulose splints and jackets and simple metal splints are made and fitted at the School, and in a few cases boots and appliances have been provided by the Authority. The Orthopædic Surgeon operates on selected cases at St. Luke's Hospital.

Some of the older girls help in the Nursery School with the small children during the dinner hour, but their help can only be given at such times as will not interfere with their education.

Fuller details respecting the children at this School, curriculum, etc., have been given in previous Reports. The daily programme for the Nursery Section was given in the 1933 Report.

There were 210 children on the register at the end of the year, classified as under. This is a decrease of 7 on the previous year.

Defect	Boys			Girls			Total
	Aged under 5	Aged 5 to 10	Aged 11 to 15	Aged under 5	Aged 5 to 10	Aged 11 to 15	
Congenital Deformities, <i>e.g.</i> , Club-foot, Dislocation of Hipjoint, etc. ... ..	3	8	6	1	5	3	26
Birth Palsy, Torticollis, Infantile Hemiplegia, etc. ... ..	—	1	—	—	1	3	5
Deformities due to Infantile Paralysis ...	3	8	10	—	5	7	33
Deformities due to Rickets ... ..	5	2	—	1	1	—	9
Deformities due to Tuberculous Disease of Bones and Joints :							
1. Spine ... ..	—	—	2	—	—	3	5
2. Hip ... ..	—	3	3	—	5	6	17
3. Other regions ...	—	1	1	—	—	2	4
Heart Disease :—							
Congenital ... ..	—	7	2	—	9	3	21
Acquired ... ..	1	14	8	—	17	18	58
Other Conditions ...	—	10	7	1	6	8	32
Totals ... ..	12	54	39	3	49	53	210

			Boys	Girls
Number on Register 1st January, 1938	...	...	112	105
Number admitted during the year	...	...	21	26
Number discharged during the year	...	...	26	28
Number on register 31st December, 1938	...	...	107	103

3 children from other towns are in attendance at this school.

Children discharged during the year:—

1. Fit to attend an Elementary School	...	16	10
2. For employment at 16 years of age	...	2	3
3. For employment under 16 years of age	...	5	5
4. Left the City	... ..	1	6
5. Deceased	... ..	1	1
6. Unfit to attend any school	...	1	1
7. Other reasons	...	—	2
Totals	...	26	28

It is very gratifying to note that the number of children discharged "fit to attend an ordinary Elementary School" still remains very high as a result of the children receiving treatment earlier in life in the Nursery Section of the school. The figures for the past five years are as follows: 26 in 1938, 18 in 1937, 15 in 1936, 24 in 1935, 36 in 1934.

The following Table gives particulars of treatment given by the Masseuses at Lister Lane School:—

Defect	Nature of Treatment							
	Massage.		Electrical.		Remedial Exercises.		Splints and Jackets.	
	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments
Tubercular Bones and Joints	7	377	1	42	7	458	15	732
Osteo-Myelitis Hip ... ..	1	52	—	—	—	—	3	110
Rickets .. ..	8	200	—	—	5	318	—	—
Spinal Curvature .. ..	2	70	—	—	11	1019	—	—
Heart Disease .. ..	—	—	—	—	6	448	—	—
Paralysis .. ..	41	2019	8	508	28	2202	—	—
Congenital Deformities .. ..	14	667	1	47	4	217	1	37
Miscellaneous .. ..	8	349	2	128	7	568	6	201
Totals .. ..	81	3734	12	725	68	5170	25	1080

A summary showing the result of the visitations by the Voluntary Inter-Care Committee for the Lister Lane School, which recorded the later careers of the children who left the school during the 10 years 1924-34, was published in the 1935 report.

An interesting account was also given in the 1935 Report of the work done at the Cripples' Institute by old scholars of the Lister Lane School.

(4) THE MARGARET McMILLAN SPECIAL DAY SCHOOL FOR MENTALLY DEFECTIVE CHILDREN.

The history of Mental Defective Schools, details of the present buildings, and photographs of the Boys' School opened 23rd September 1929, appeared in the 1929 Report. The curriculum for both boys and girls was given in the Report for 1931.

As far as possible, with mentally defective children, the chief aim is to teach these children those things which will be most useful and helpful after leaving school, when to a certain extent they have to rely on themselves, so that although limited in many ways they may at least try to be decent and happy citizens by taking a pride in themselves and their homes.

The numbers of children attending this School are shown in the following table :—

Sex			On roll 1st January, 1938	Admitted	Discharged	On roll 31st December 1938
Boys ...	...	...	30	2	4	28
Girls ...	...	...	30	2	8	24
Totals ...			60	4	12	52

The above figures include 8 children from other towns.

Children who have left during the year:—

	Boys.	Girls
1. Went to work at 16 years of age ... ..	2	2
2. Transferred to Institution for Mental Defectives ... ..	1	2
3. Placed under statutory supervision ... ..	—	2
4. Left the City ... ..	1	2
Totals ... ..	4	8

(5) THACKLEY OPEN-AIR SCHOOL.

Full particulars of this School, which was opened in 1908, have been given in previous reports. The children who attend the School reside on the north, north-east, and north-west sides of the city. The accommodation is for 275 children. The School continues to be conducted along the lines indicated in previous reports. A record is kept of all clinical facts relating to each child, and the height, weight, lung capacity, and hæmoglobin content are also noted.

On arrival at School the children are provided with breakfast, consisting of:—Porridge with milk and treacle; bread and margarine (or jam) and cocoa. Dinners are supplied from the Green Lane Cooking Depot. Tea:—At the end of the afternoon before departure for home, each child has a mug of warmed milk.

The following table gives the average increases in height, weight, etc., of the children discharged during the years 1920–38:—

Year	Number of children discharged	Increase in weight (kilos.)	Increase in height (cms)	Increase in hæmoglobin (per cent.)	Increase in chest measurement (ins.)	Average stay in months
1920	177	2.58	5.29	11.33	0.94	10.5
1921	258	2.20	3.27	9.34	0.61	7.3
1922	297	2.28	4.78	12.88	0.37	8.4
1923	257	2.43	4.06	8.04	1.11	8.7
1924	329	2.48	3.43	14.15	0.59	7.3
1925	410	2.64	3.46	12.99	1.02	7.5
1926	415	3.28	3.46	12.43	1.50	8.4
1927	381	2.81	4.55	10.82	1.00	9.2
1928	362	2.80	4.36	12.65	1.20	8.8
1929	414	2.56	3.93	12.77	0.85	8.7
1930	418	2.52	3.92	14.05	0.55	9.1
1931	410	2.25	3.28	11.41	0.32	7.9
1932	423	2.70	3.00	8.80	0.33	8.8
1933	413	2.44	2.80	11.08	0.39	6.6
1934	486	1.91	3.11	8.30	0.33	7.4
1935	461	2.08	3.08	11.86	0.33	7.1
1936	445	2.58	3.06	13.70	0.40	8.3
1937	412	2.26	3.96	12.35	0.39	8.6
1938	455	3.46	3.00	13.40	0.32	8.7

The numbers of children in attendance at the Thackley Open-air school during the year 1938 were as follows:—

		Boys	Girls
Number on register 1st January, 1938	...	181	150
Number admitted during the year	...	193	238
Number discharged during the year	...	237	218
Number on register 31st December, 1938	...	137	170
Average number present during the year	...	117.1	122.9

#### ODSAL HOUSE OPEN-AIR SCHOOL.

Particulars of this School respecting the situation, aspect, area, buildings, etc., were given in the 1927 Report. The accommodation is for 200 children, including those in residence. The children who attend this school reside on the south, south-east, and south-west sides of the v.

The dietary is very similar to the one at Thackley. The older boys and girls are taught gardening and domestic work, such as repairing tools, apparatus for practical arithmetic and geography, elementary upholstery, repairing of desks and chairs, decorative work, etc.

The following Table gives the average increases in height, weight, etc., of the children discharged during the years 1928-38:—

Year	Number of children discharged	Increase in Weight (kilos.)	Increase in Height (cents.)	Increase in Hæmoglobin (per cent.)	Increase in Chest Measurement (inches)	Average stay in months
1928	184	1.95	3.31	18.7	0.25	7.69
1929	398	2.15	3.63	14.2	0.29	7.97
1930	352	1.88	2.97	14.3	0.06	6.92
1931	419	1.84	2.31	17.7	0.09	5.53
1932	443	2.10	2.47	12.5	0.44	6.37
1933	262	1.76	2.61	17.0	0.65	5.83
1934	291	2.01	3.20	16.1	0.58	7.28
1935	305	1.82	3.20	20.8	0.72	7.37
1936	266	2.00	2.95	20.5	0.73	6.17
1937	275	1.81	2.93	21.5	0.87	6.73
1938	244	1.62	2.85	20.0	0.90	7.26

The numbers of children in attendance at the School during the year were as follows:—

	<i>Boys</i>	<i>Girls</i>
Number of children on register 1st January, 1938 ...	114	87
Number admitted during the year ... ..	200	189
Number discharged during the year ... ..	197	168
Number on register 31st December, 1938 ... ..	117	108
Average number present during the year ... ..	100.25	87.60

#### RESIDENTIAL OPEN-AIR SCHOOL.

Since November, 1930, accommodation has been provided at the Odsal House Open-Air School for 20 boys and 20 girls to be kept in residence.

The Domestic Staff consists of Matron, who also acts as Cook Assistant Matron who acts as Sewing Maid, and 3 Domestic Maids. The children selected for residence are delicate children from homes which are considered to be overcrowded and generally bad, especially the sleeping accommodation. The residential record card of each child includes information as to house, type, condition of living room, sleeping rooms, number of occupants, and number of occupants of child's sleeping room, special comments, e.g., family history, environment, control, etc.

Children remain in residence for one school term, except odd cases, who, because of their poor physical condition, are kept for a further period. All the children showed improvement in nutrition and hæmoglobin and gain in height and weight.

During the year 1938, 59 boys and 62 girls were in residence at this school, and the following Table shows the improvement in their physical condition at the time of discharge:—

Year	Number of children discharged	Increase in Weight (kilos.)	Increase in Height (cents.)	Increase in Hæmoglobin (per cent.)	Increase in chest measurement (ins.)	Average stay in months
1931	155	4.32	0.75	16.25	0.08	2.92
1932	87	1.85	1.81	11.33	0.26	3.81
1933	112	2.10	1.69	15.23	0.60	3.64
1934	104	1.79	2.41	17.60	0.63	4.49
1935	141	1.87	2.76	22.10	0.77	4.96
1936	138	2.20	2.45	20.08	0.72	5.02
1937	136	2.18	2.51	11.00	0.84	4.85
1938	121	2.24	2.34	21.00	0.90	5.36

These calculations are included in the figures shown for those in attendance at the Odsal House Open-Air School.

The menu for the residential children is as follows: Breakfasts and Dinners, Monday to Saturday the same as the day open-air children; Teas, bread and butter with one of the following: cold boiled bacon, meat roll (hot), meat sandwiches (mixed), shepherd's pie, scrambled eggs, fishcakes, fish pie, bananas and custard, fresh fruit salad and custard, and tea or milk. Breakfast, Sunday, bacon sandwiches, bread and butter, cocoa or milk; Dinner, Sunday, thin soup, meat and two vegetables, stewed fruit or fruit pie and custard.

During the year 1938, 820 children were discharged from the two Open Air Schools. The undermentioned Tables show the defects and estimated nutrition when admitted and the improvement in nutrition when discharged

Nutrition on Admission				Nutrition on Discharge		
Condition				Remained Stationary	Improved to A. Excellent	Improved to B. Normal
1.	Excellent	...	...	2	—	—
2.	Normal	...	...	141	5	—
3.	Slightly Sub-normal	...	...	675	4	659
4.	Bad	...	...	2	—	2

Defect	No.	Defect	No.
Anæmia ... ..	166	Post Sanatoria ... ..	23
Anæmia and Malnutrition ...	47	Pretubercular... ..	17
Anæmia and Chorea ... ..	2	Tubercular Hip ... ..	1
Anæmia and Bronchitis ... ..	6	Epilepsy ... ..	7
Anæmia and Adenitis ... ..	2	Adenitis ... ..	14
Anæmia and Bronchial Catarrh	2	Rheumatism ... ..	12
Anæmia and Debility ... ..	17	Chorea... ..	39
Anæmia and Rheumatism ... ..	3	Chorea and Defective Vision	1
Anæmia and Anorexia ... ..	4	Chorea and Heart Condition	2
Malnutrition only ... ..	139	Defective Vision ... ..	9
Malnutrition and Bronchial		Post Tonsillectomy ... ..	5
Catarrh ... ..	2	Acidosis ... ..	3
Malnutrition and Otorrhœa ...	1	Nervous Condition ... ..	26
Malnutrition and Defective		Alopecia ... ..	2
Vision ... ..	1	Post Operation ... ..	6
Malnutrition and Debility ... ..	8	Anorexia ... ..	19
Malnutrition and Rickets ... ..	1	Mental Condition ... ..	5
Malnutrition and Bronchitis...	1	Skin Condition ... ..	1
Debility ... ..	134	Enuresis ... ..	1
Bronchitis ... ..	50	Post Pleurisy ... ..	1
Bronchial Catarrh ... ..	14	Eczema ... ..	1
Asthma ... ..	7	Otorrhœa ... ..	5
Rickets ... ..	6		
Heart Condition ... ..	7		

(7) ANTI-TUBERCULOSIS CENTRE AND GRASSINGTON SANATORIUM SCHOOL.

Children found at Medical Inspections to be suffering from or suspected to be suffering from Tuberculosis are referred to the Tuberculosis Officer, who holds a Children's Clinic at 2 Howard Street each Thursday at 9.30 a.m.

The following particulars respecting the treatment of school children at the Anti-tuberculosis Centre have been supplied by Dr. Vallow, the Tuberculosis Officer:—

	Boys	Girls
Number under treatment on the 1st January, 1938 ...	4	4
Number of new cases during the year ... ..	71	61
Number of cases discharged during the year (including cases sent to Sanatoria)... ..	70	63
Number remaining under treatment on 31st December, 1938 ... ..	5	5

Children are selected by the Tuberculosis Officer for attendance at the Grassington Sanatorium School, and are conveyed there by ambulance.

Except for odd cases the children remain at the school until discharged by the Medical Officer of the Sanatorium.

On 1st January, 1938, 20 boys and 15 girls were in residence at the school. 32 boys and 27 girls were admitted, 30 boys and 25 girls discharged, leaving in residence on 31st December, 1938, 22 boys and 17 girls.

The 39 children on register 31st December, 1938, were classified as follows:—

	Boys.	Girls.
1. Active Pulmonary Tuberculosis (including pleura and intrathoracic glands) ... ..	14	9
2. Non-Pulmonary Tuberculosis ... ..	3	2
3. Pre-Tubercular ... ..	5	6
	—	—
Totals ...	22	17

The 55 children discharged were dealt with as follows:—

Admitted to:—	Boys	Girls	Total
Odsal House Open-air School ... ..	12	4	16
Thackley Open-air School ... ..	12	12	24
Lister Lane School ... ..	—	1	1
Daisy Hill Partially Sighted School ... ..	—	2	2
Ordinary School ... ..	2	1	3
Over School Age ... ..	—	1	1
To Anti-tuberculosis Dispensary ... ..	2	2	4
To Private Practitioner ... ..	—	1	1
Re-admitted Grassington ... ..	1	—	1
Deceased ... ..	1	—	1
Under School Age ... ..	—	1	1
Totals ... ..	30	25	55

#### 14. FULL-TIME COURSES OF HIGHER EDUCATION FOR DEFECTIVE PERSONS.

(a) *Blind Persons*.—Particulars of those receiving training during 1938 are given below:—

	Trades					
	Brush making	Basket making	Mat making	Mattress and Bedding making	Machine Knitting	Total
Adults:	Males	Males	Males	Males	Females	
At the Royal Inst. for the Blind, Bradford ... ..	2	3	—	1	—	6
Adolescents:						
At the Leeds Training School for the Blind ... ..	5	3	1	—	3	12

The Committee have continued their contribution towards the cost of a General Education Course for a boy over 16 years of age at the Worcester College for the Blind.

(b) *Physically Defective Persons*.—The Committee have agreed during the year to assist an adult male to obtain training in chiropody and an adolescent youth to attend the St. Loyes Training Centre for Cripples, Exeter, for training in clock and watch repairing.

15. NURSERY SCHOOLS.—There are eight Nursery Schools in Bradford. Full particulars of sites, buildings, equipment, gardens dietary provided and general principles which guide the life of the Nursery School, etc., have been given in previous reports.

The Medical Staff acts in close co-operation with the Educational Staff in connection with the general arrangements, equipment, and dietary provided. The Assistant School Medical Officers visit the schools one half-day per month and the Nurses one half-day per week, except the Princeville Nursery School where the Assistant Medical Officer visits two half-days per month since the combining with the Infants Department took place in 1935. At the monthly visit to the schools the Assistant School Medical Officer examines the children admitted since his previous visit, and during the year all children in the schools have at least one full medical examination.

The following table gives the number of defects found at the periodical examinations (other than the Routine Medical Inspection) of Nursery School children:—

Defect or Disease	Number of Defects.			
	To be kept under observation but not referred for treatment.	Referred for Treatment.	Treated by this Authority.	Treated Otherwise.
Malnutrition... ..	1	5	4	—
Uncleanliness : Head ... ..	—	3	—	3
Skin: Impetigo ... ..	—	6	6	—
Scabies ... ..	—	2	2	—
Other Diseases (Non-T.B.) ... ..	—	13	10	2
Eye : Blepharitis ... ..	—	6	6	—
Squint ... ..	2	8	5	1
Ear : Defective Hearing ... ..	—	3	3	—
Otitis Media ... ..	—	14	14	—
Nose and Throat :				
Enlarged Tonsils ... ..	18	18	16	—
Adenoids ... ..	1	—	—	—
Enlarged Tonsils and Adenoids ... ..	1	4	1	—
Other Conditions ... ..	1	15	13	2
Enlarged Cervical Glands ... ..	—	2	2	—
Defective Speech ... ..	5	—	—	—
Heart and Circulation:				
Heart Disease, Organic ... ..	8	—	—	—
Anæmia ... ..	—	29	25	—
Lungs : Bronchitis ... ..	—	6	5	1
Other Non-T.B. Diseases ... ..	—	14	11	3
Nervous System : Epilepsy ... ..	1	—	—	—
Other Conditions ... ..	—	4	2	—
Deformities : Rickets ... ..	1	16	14	—
Other Forms ... ..	2	—	—	—
Mental Condition .. ..	1	—	—	—
Infectious Diseases ... ..	—	1	—	1
Other Defects and Diseases ... ..	7	29	14	9
Minor Ailments ... ..	—	11	10	—
Totals ... ..	51	209	173	22

16. SECONDARY SCHOOLS AND OTHER INSTITUTIONS OF HIGHER EDUCATION.—There has been no change in the work of the School Medical Service in connection with pupils attending Secondary Schools and other Institutions of Higher Education. A full statement was given in the 1932 Report.

During the year the Woman Medical Officer has been employed about four half-days per week in connection with the Secondary Girls' Schools. In the Boys' Secondary Schools a similar amount of time has been spent, the Medical Officer in each district taking the Secondary Boys' School in his particular district. Medical Inspections have been conducted in all the Secondary Schools in Bradford, also in the College of Art, Bradford Grammar School, Bradford Girls' Grammar School, St. Bede's Grammar School, and St. Joseph's College for Girls.

It will be seen from Table I that 4,435 children were examined during the year, compared with 4,443 in 1937.

17. PARENTS' PAYMENTS.—The Education Committee ask parents to contribute the undermentioned amounts towards the cost of the medical and dental treatment of their children, except children who attend the Daisy Hill School for Partially-Sighted Children, where spectacles are provided free, as part of the treatment, and at the School for Physically Defective Children, where orthopaedic and remedial treatment is given free of charge.

X-Ray Treatment ... ..	7/6 per case.
Operative Treatment for Enlarged Tonsils and Adenoids ... ..	7/6 per case.
Dental Treatment ... ..	6d. per attendance.
Ultra-Violet Ray Treatment ... ..	6d. per attendance.
Massage and Remedial Treatment ... ..	6d. per attendance.
Provision of Spectacles ... ..	Actual Cost.
Minor Ailments ... ..	Voluntary Contributions.

Payment of the larger sums is made by instalments, if necessary. All cases in which the family income is so small as to preclude parents from paying are treated free of charge.

Summary of Payments for 1938:—

	£	s.	d.
Supply of Spectacles ... ..	52	18	9
Tonsils & Adenoids Operations	640	11	6
X-Ray Treatment			
Dental Treatment			
Ultra-Violet Ray Treatment			
Remedial Treatment			

Minor Ailments (Voluntary Contributions) ...	...	13	10	11
Malt and Oil ...	...	119	17	2
Emulsion ...	...	66	0	6
Virol ...	...	123	18	9
Total ...		£1016	17	7

18. HEALTH EDUCATION.—Leaflets are distributed to the parents and children at the School Medical Inspections, Cleanliness Inspections, and Special Inspections at the School Clinics.

The Dental Surgeons make a practice of giving talks and short addresses about the care of the teeth in the Schools at the time of inspection, when circumstances permit, and again chair-side talks are given to the parents when they visit the Clinic with their children for treatment. Dental Exhibits and Demonstrations were given by representatives of the Dental Board of the United Kingdom to scholars in attendance at Modern Schools in January and February 1938. The Head Teachers of all schools visited reported that the Lectures and Exhibits were appreciated by children and teachers.

19. SPECIAL INQUIRIES.—There have been no Special Inquiries during 1938.

20. MISCELLANEOUS.—(1) Under the regulations of the National Health Insurance (Juvenile Contributors and Young Persons) Act, 1937, Section 6, information has been supplied from School Medical records in 33 cases on application from Medical Practitioners and in 3 cases no information was available. (2) During the summer of 1938, 1,415 Junior Scholarship candidates were medically examined, an increase of 121 over the previous year. Of that number, 509, or 35·3 per cent. were found to be suffering from some abnormality, full particulars of which will be found in the following table. Of the 509 found abnormal, 312 or 22·0 per cent. of the number examined were referred for treatment.

2 boys and 3 girls were recommended that their scholarships be postponed. 4 boys and 1 girl were certified fit to take up a secondary education on condition that they were exempted from all homework for periods varying from 6 to 12 months, after which they are to be re-examined, and 5 boys and 2 girls were exempted from physical exercises.

Defect or Disease	Number of Defects	
	To be kept under observation, but not referred for treatment	Referred for treatment
Malnutrition ... ..	5	12
Skin: Scabies ... ..	—	2
Impetigo ... ..	—	4
Other Diseases (Non-T.B.) ... ..	2	11
Eye: Blepharitis ... ..	—	7
Conjunctivitis ... ..	—	1
Defective Vision ... ..	122	96
Squint ... ..	3	—
Other Conditions ... ..	—	2
Ear: Otitis Media ... ..	1	2
Other Ear Diseases ... ..	—	1
Nose and Throat: Enlarged Tonsils ... ..	41	63
Adenoids only ... ..	—	2
Enlarged Tonsils and Adenoids... ..	—	11
Other Conditions ... ..	1	8
Enlarged Cervical Glands (Non-T.B.) ... ..	4	9
Dental Disease ... ..	—	21
Heart and Circulation:—		
Heart Disease: Organic ... ..	14	23
Functional ... ..	6	1
Anæmia ... ..	2	39
Lungs: Bronchitis ... ..	—	2
Other Non-T.B. Diseases ... ..	3	2
Nervous System: Epilepsy ... ..	1	—
Chorea ... ..	1	1
Other Conditions ... ..	4	15
Deformities: Rickets ... ..	2	1
Spinal Curvature ... ..	1	25
Other Forms ... ..	10	16
Other Defects and Diseases ... ..	7	29
Minor Ailments ... ..	—	4
Rheumatism ... ..	—	1
Totals ... ..	230	411

### 3. EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

Education Act, 1921, Part VIII, Sections 94-99. Children and Young Persons Act, 1933, Sections 4, 18-30.

There has been no change in the administration of the Bye-laws made under the provisions contained in the Children and Young Persons Act, 1933, relating to the employment of children.

Approximately 700 children are known to have been employed out of school hours in Bradford, chiefly in the delivery of newspapers and as errand boys or girls in connection with shops. During the year the number of offences against the Bye-laws discovered was 281, relating to 124 children, while 37 children under 12 years of age were being employed illegally. In one case the employer (who also was the parent) was prosecuted and in every other case warning notices were sent to the persons concerned. 339 children were medically examined regarding their fitness for employment out of school hours and in each case a certificate was granted. Five employers were found to be employing children before the end of the school term and the necessary action taken; in four cases the children returned immediately to school and in the other case (a Special School child of just over 14 years of age) court proceedings had to be taken against the parent before the child's return to school was secured. Five children were found employed during school hours and the employers and parents warned. 17 boys under 16 years of age were found to be illegally trading in the streets. The employers and parents of these children were warned that a repetition of the offences would involve them in legal proceedings. 19 boys attending High Schools in the city were found to be employed out of school hours, and the parents warned with regard to breach of agreement.

120 children were examined in respect of licences to take part in public entertainments; in all cases the physical condition was satisfactory. 28 children visited Bradford under licences issued by other Education Authorities to take part in public entertainments. The conditions under which these children were employed have been kept carefully under observation and, whilst two children appeared in Bradford without previous notice having been given to the Authority (and in one of these cases the licence was not in the possession of the employer at the time of the performance), there have been no serious grounds for complaint. The parent of one child under the age of 12 years was warned in regard to the girl's appearances on the stage on more than six occasions during the preceding six months.

**JUVENILE EMPLOYMENT.** — The co-ordination of the work of the School Medical Service with that of the Juvenile Employment Bureau is carried out as far as possible. Under the recommendation of the Board of Education in Administrative Memorandum No. 137, 1935, arrangements have been made to indicate on the Medical Schedules advice relating to the unsuitability of certain children for particular types of work. This advice is transferred to the children's Employment Cards and is taken into consideration in deciding the occupation for which they are suitable. In exceptional cases children are medically examined by the Chief Assistant School Medical Officer at the request of the Officer-in-Charge of the Bureau.

21. STATISTICAL TABLES.—The number of scholars on the registers of the Schools in the City on the 30th June, 1938, was as follows:—

Type of School					Number of Children on Register	Average Attendance
Elementary Schools	...	...	...	...	33068	22843
High Schools	...	...	...	...	3851	3611
Central Schools	...	...	...	...	464	428
Special Schools	...	...	...	...	1046	834
Nursery Schools	...	...	...	...	750	550
Totals					39179	34266
College of Art and Crafts	...	...	...	...	92	85
Grammar Schools	...	...	...	...	1949	1857
Totals					41220	36208

22. In concluding this report reference should be made to the retirement of Dr. L. A. Williams, the Senior Assistant School Medical Officer, who for more than thirty years, ably served the Education Authority in this capacity. His outstanding work in all the developments that have taken place during the time of his service has been of the greatest benefit to the health and physique of the school children in the City.

TABLE I

## RETURN OF MEDICAL INSPECTION

A.—ROUTINE MEDICAL INSPECTIONS.

ELEMENTARY SCHOOLS.

Code Group	Boys	Girls	Total
Entrants ... ..	1840	1664	3504
Second Age Group ...	1739	1634	3373
Third Age Group ...	1388	1468	2856
Totals ... ..	4967	4766	9733
Other Routine Inspections:			
Other Ages ... ..	435	494	929
Candidates for Secondary Schools ... ..	740	675	1415
Totals ... ..	1175	1169	2344
Elementary Schools, Grand Totals ...	6142	5935	12077
Special Schools	112	118	230
Nursery Schools ...	463	460	923

## SECONDARY SCHOOLS.

Sex	Student Teachers and Bursars.	Routine Inspections.									Grand Total
		10	11	12	13	14	15	16	over 16	Total	
Boys ...	—	16	93	498	512	487	521	155	76	2358	2358
Girls ...	11	31	95	424	470	435	400	127	84	2066	2077
Total ...	11	47	188	922	982	922	921	282	160	4424	4435

TABLE I—*continued.*

## B.—OTHER INSPECTIONS.

1. <i>Elementary Schools:</i>	Special Inspections	...	...	10641
	Re-inspections	...	...	8719
	Total	...	...	19360
2. <i>Secondary Schools:</i>	Special Inspections	...	...	1329
	Re-inspections	...	...	1460
	Total	...	...	2789
3. <i>Special Schools:</i>	Special Inspections	...	...	1787
	Re-inspections	...	...	2604
	Total	...	...	4391
4. <i>Nursery Schools:</i>	Special Inspections	...	...	253
	Re-inspections	...	...	986
	Total	...	...	1139

## C.—NUMBER OF CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (excluding Malnutrition, Uncleanliness, and Dental Disease).

Group	For Defective Vision (Excluding Squint)	For all other conditions recorded in Table IIA	Total
Entrants ... ..	4	1257	1261
Second Age Group ... ..	261	955	1144
Third Age Group ... ..	260	699	883
Totals ... ..	525	2911	3288
Other Routine Inspections:—			
Other Ages ... ..	59	315	356
Scholarships ... ..	96	237	310
Totals ... ..	155	552	666
Grand Totals (Elementary Schools)	680	3463	3954
Secondary Schools ... ..	383	870	1176
Special Schools ... ..	7	52	58
Nursery Schools ... ..	13	382	395

TABLE II

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION  
IN THE YEAR ENDED 31st DECEMBER, 1938.

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Skin :								
Ringworm, Scalp ...	1	—	32	—	—	—	—	—
Ringworm, Body ...	2	—	22	—	—	—	3	—
Scabies ...	25	—	253	—	3	—	6	—
Impetigo ...	45	1	667	—	3	—	14	—
Other Diseases (Non-T.B.) ...	167	14	672	—	100	17	59	—
Total (Skin Diseases)	240	15	1646	—	106	17	82	—
Eye :								
Blepharitis ...	49	4	130	—	9	—	—	—
Conjunctivitis ...	10	—	132	—	5	—	10	—
Keratitis ...	1	1	4	—	—	—	—	—
Corneal Opacities ...	—	—	7	—	—	—	—	—
Other Conditions ...	9	5	269	1	22	12	—	1
Total (Eye Diseases)	69	10	542	1	36	12	10	1
Defective Vision ...	680	613	2349	51	383	707	562	24
Squint ...	88	136	90	2	3	8	—	—
Ear :								
Defective Hearing ...	51	8	24	—	6	2	—	—
Otitis Media ...	58	4	357	—	6	1	10	—
Other Ear Diseases ...	11	4	200	—	4	—	14	—
Nose and Throat :								
Chronic Tonsillitis only	980	361	228	4	78	107	3	—
Adenoids only ...	27	3	14	—	4	—	—	—
Chronic Tonsillitis and Adenoids ...	161	4	101	—	5	—	4	1
Other Conditions ...	161	13	835	—	49	—	47	—
Enlarged Cervical Glands (Non-T.B.) ...	139	49	269	1	16	17	11	—
Defective Speech ...	15	20	1	1	2	4	—	—

TABLE II—continued.

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Heart and Circulation :								
Heart Disease Organic	201	60	55	23	48	26	3	5
Functional	24	56	7	9	12	22	—	1
Anæmia ... ..	592	12	519	—	169	8	45	—
Lungs :								
Bronchitis ... ..	100	3	294	—	5	—	8	—
Other Non-T.B. Dis- eases ... ..	132	17	633	—	18	6	19	—
Tuberculosis :								
Pulmonary Definite	—	—	1	2	—	—	—	—
Pulmonary Suspected	1	—	16	—	—	—	1	—
Non-Pulmonary—								
Glands ... ..	1	—	3	—	—	—	1	—
Bones and Joints	—	—	4	1	—	—	—	—
Skin ... ..	—	—	—	—	—	—	—	—
Other Forms ... ..	1	—	5	—	—	—	—	—
Total (Non-Pul. T.B.)	2	—	12	1	—	—	1	—
Nervous System :—								
Epilepsy .. ...	9	5	13	5	1	1	—	1
Chorea ... ..	24	8	84	—	5	2	10	—
Other Conditions ...	214	21	22	1	78	8	—	—
Deformities :—								
Rickets ... ..	58	20	13	—	10	12	—	—
Spinal Curvature ...	257	14	37	—	72	25	28	1
Other Forms ... ..	222	61	67	5	167	71	5	2
Other Defects and Diseases (excluding Uncleanliness and Dental Disease) ...	543	142	8069	60	159	36	481	5
Totals ... ..	5 62	1659	16498	166	1442	1092	1341	41

TABLE II—*continued.*

Defect or Disease	Special Schools				Nursery Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
<b>Skin:</b>								
Ringworm, Scalp ...	—	—	—	—	—	—	2	1
Ringworm, Body ...	1	—	—	—	—	—	2	—
Scabies ... ..	—	—	12	—	1	—	12	—
Impetigo ... ..	1	—	51	—	13	—	25	—
Other Diseases (Non-T.B.)	3	1	20	—	32	—	—	2
Total (Skin Diseases) ...	5	1	84	—	46	—	41	3
<b>Eye:</b>								
Blepharitis ... ..	1	—	8	—	5	1	—	—
Conjunctivitis ... ..	—	—	16	1	—	—	1	—
Keratitis ... ..	—	—	—	—	1	—	—	—
Corneal Opacities ...	1	—	—	—	—	—	—	—
Other Conditions ...	—	1	12	—	2	—	—	—
Total (Eye Diseases) ...	2	1	36	1	8	1	1	—
Defective Vision ...	7	14	94	7	—	—	5	—
Squint ... ..	—	6	1	—	13	9	11	—
<b>Ear:</b>								
Defective Hearing ...	—	—	3	4	5	—	—	1
Otitis Media ... ..	5	—	45	—	11	—	21	—
Other Ear Diseases ...	—	—	6	—	—	—	4	—
<b>Nose and Throat:</b>								
Chronic Tonsillitis only...	3	8	5	—	97	32	—	—
Adenoids only ... ..	—	—	—	1	—	—	1	—
Chronic Tonsillitis and Adenoids ... ..	—	—	2	1	19	1	—	—
Other Conditions ...	2	—	67	—	30	1	—	5
Enlarged Cervical Glands (Non-T.B.) ... ..	—	—	12	—	11	14	3	—
Defective Speech ... ..	—	—	—	2	1	8	—	—

TABLE II— *continued.*

Defect or Disease	Special Schools				Nursery Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Heart and Circulation:								
Heart Disease, Organic...	1	1	7	6	20	3	—	2
Heart Disease, Functional	1	2	—	—	1	1	2	—
Anæmia ... ..	14	—	7	1	54	—	—	—
Lungs:								
Bronchitis ... ..	2	1	8	—	21	—	3	—
Other Non T.B. Diseases	7	2	44	—	25	5	—	—
Tuberculosis:								
Pulmonary, Definite ...	—	—	2	—	—	—	—	—
Pulmonary, Suspected ...	—	—	4	—	—	—	—	—
Non-Pulmonary:								
Glands ... ..	—	—	—	—	—	—	1	—
Bones and Joints ...	—	—	—	—	—	—	—	—
Skin ... ..	—	—	—	—	—	—	—	—
Other Forms ... ..	—	—	—	—	—	—	—	—
Nervous System:								
Epilepsy ... ..	—	—	2	—	2	—	—	—
Chorea ... ..	2	—	—	—	—	—	—	—
Other Conditions ...	5	—	1	—	5	—	—	—
Deformities:								
Rickets ... ..	3	—	—	—	41	8	—	—
Spinal Curvature ...	2	2	1	1	3	—	—	—
Other Forms ... ..	2	5	8	5	30	1	—	—
Other Defects and Diseases (excluding Uncleanliness and Dental Disease) ...	11	5	502	6	62	7	132	2
Totals ... ..	74	48	941	35	505	91	225	13

The figures under the heading of Special Schools do not include the defects for which the children are in attendance at the Special School.

TABLE II—*continued*.B.—CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED  
DURING THE YEAR IN THE ROUTINE AGE GROUPS.

Age Groups	Number of Children In- spected	A (Excellent)		B (Normal)		C (Slightly sub-normal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants ... ..	3504	776	22.2	2653	75.7	75	2.1	—	—
Second Age Group...	3373	740	21.9	2536	75.2	97	2.9	—	—
Third Age Group ...	2856	739	25.9	2053	71.9	64	2.2	—	—
Other Routine In- spections... ..	2344	588	25.1	1708	72.8	48	2.0	—	—
Totals (Elementary)	12077	2843	23.5	8950	74.1	284	2.4	—	—
Secondary Schools...	4435	959	21.6	3430	77.4	46	1.0	—	—
Special Schools ...	230	49	21.3	179	77.8	2	0.9	—	—
Nursery Schools ...	923	216	23.4	673	72.9	34	3.7	—	—
Grand Totals ...	17665	4067	23.0	13232	74.9	366	2.1	—	—

TABLE III

## RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

## BLIND CHILDREN.

At Certified Schools for the Blind.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
4	—	—	—	4

## PARTIALLY SIGHTED CHILDREN.

At Certified Schools for the Blind.	At Certified Schools for the Partially Sighted	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	137	8	—	1	146

## DEAF CHILDREN.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
27	—	—	—	27

## PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf.	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
25	—	—	—	—	25

## MENTALLY DEFECTIVE CHILDREN—FEEBLE-MINDED CHILDREN.

At Certified Schools for Mentally Defective Children.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
45	1	—	12	58

## EPILEPTIC CHILDREN—CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
3	—	1	6	10

TABLE III—*continued*

## PHYSICALLY DEFECTIVE CHILDREN.

## A. Tuberculous Children:—

1.—Children Suffering from Pulmonary Tuberculosis  
(including pleura and intra-thoracic glands).

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
23	—	—	1	24

## 2.—Children Suffering from Non-Pulmonary Tuberculosis.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
5	—	2	3	10

## B. Delicate Children.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
543	229	—	14	786

## C. Crippled Children.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
128	1	—	3	132

## D. Children with Heart Disease.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
79	2	—	1	82

## CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Combination of Defects	At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
Blind and Cripple ...	—	—	—	1	1
Mentally Defective and Epileptic ...	—	—	—	1	1
Mentally Defective and Cripple ...	1	—	—	1	2

TABLE IV.

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1938.

## TREATMENT TABLES.

GROUP 1.—Minor Ailments (excluding Uncleanliness, for which see Group 6).

Number of Defects treated, or under treatment during the year												
Defect or Disease	Elementary Schools			Secondary Schools			Special Schools			Nursery Schools		
	Under Local Authority's Scheme	Otherwise	Total	Under Local Authority's Scheme	Otherwise	Total	Under Local Authority's Scheme	Otherwise	Total	Under Local Authority's Scheme	Otherwise	Total
Skin:—												
Ringworm, Scalp (a) X-Rays	—	—	—	—	—	—	—	—	—	—	—	—
(b) Otherwise	27	—	27	—	—	—	1	—	1	4	—	4
Ringworm, Body	23	1	24	3	—	3	1	—	1	3	—	3
Scabies	270	5	275	7	1	8	12	—	12	15	—	15
Impetigo	689	12	701	15	—	15	52	—	52	38	2	40
Other Skin Diseases	729	35	764	76	25	101	23	—	23	19	—	19
Minor Eye Defects:—												
(External and other, but excluding cases falling in Group 2)	549	11	560	25	4	29	36	—	36	8	—	8
Minor Ear Defects	633	25	658	32	6	38	56	1	57	37	—	37
Miscellaneous:—												
(e.g. Minor Injuries, Bruises, Sores, Chilblains, etc.)	5691	7	5701	323	7	330	372	—	372	125	—	125



TABLE IV—*continued.*

## GROUP III—Treatment of Defects of Nose and Throat.

Number of Defects.															
Type of School		Received Operative Treatment.												Received other forms of treatment	Total number treated.
		Under the Authority's Scheme in Clinic or Hospital.				By Private Practitioner, or Hospital, apart from the Authority's Scheme.				Total.					
		(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)		
Elementary	...	—	1	380	1	—	1	26	—	—	2	406	1	1121	1530
Secondary	...	—	1	7	1	—	—	—	—	—	1	7	1	78	87
Special	...	—	—	15	—	—	—	—	—	—	—	15	—	73	88
Nursery	...	—	—	27	—	—	—	1	—	—	—	28	—	24	52

(1) Tonsils only.

(2) Adenoids only.

(3) Tonsils and Adenoids.

(4) Other defects of the nose and throat.

## GROUP IV—Orthopædic and Postural Defects.

Type of School.	Number of Children.						Total
	Under the Authority's Scheme.			Otherwise.			
	Residential treatment with education.	Residential treatment without education.	Non- residential treatment at an Orthopædic Clinic.	Residential treatment with education.	Residential treatment without education.	Non- residential treatment at an Orthopædic Clinic.	
Elementary	—	—	168	—	—	36	204
Secondary	—	—	93	—	—	31	124
Special ...	—	—	161	—	—	—	161
Nursery ...	—	—	—	—	—	—	—

TABLE IV—*continued.*

## GROUP V—DENTAL DEFECTS.

	Elementary	Secondary	Special	Nursery
1. Number of children inspected by the Dentist:—				
(a) Routine Age Groups: Age				
5	2253		—	—
6	1235		—	—
7	1338		—	—
8	1565		—	—
9	1484		—	—
10	1381	73	—	—
11	1331	513	—	—
12	1149	564	—	—
13	1174	508	—	—
14	148	655	—	—
15		414	—	—
16		211	—	—
Totals ... ..	13058	2938	185	—
(b) Specials ... ..	6363	824	221	81
Totals (Routine and Specials)	19421	3762	406	81
2. Found to require treatment ...	13444	2141	285	79
3. Actually treated ... ..	8821	1233	285	79
4. Attendances made by children for treatment ... ..	10107	1672	316	86
5. Half-days devoted to:—				
Inspection ... ..	136	16	2	—
Treatment ... ..	1441	130	28	10
Totals ... ..	1577	146	30	10
6. Fillings: Permanent Teeth ...	1623	1167	66	—
Temporary Teeth ... ..	52	—	11	—
Totals ... ..	1675	1167	77	—
7. Extractions: Permanent Teeth	5334	1566	188	—
Temporary Teeth	14502	369	389	209
Totals ... ..	19836	1935	577	209
8. Administrations of general anæsthetics for extraction ...	5561	732	108	61
9. Other Operations:—				
Permanent Teeth ... ..	52	33	3	—
Temporary Teeth ... ..	163	4	3	1
Totals ... ..	215	37	6	1

TABLE IV—*continued*.

## GROUP VI—Uncleanliness and Verminous Conditions.

	Elementary.	Secondary.	Special.	Nursery.
(1) Average number of visits per School made during the year by the School Nurses...	10·9	13·4	34·8	31·0
(2) Total number of examinations of children in the Schools by the School Nurses	105120	3523	6728	7392
(3) Number of individual children found unclean ... ..	1435	3	85	30
(4) Number of children cleansed under Section 87, Education Act, 1921. ... ..	—	—	—	—
(5) Number of cases in which legal proceedings were taken:—				
(a) Under the Education Act, 1921 ... ..	—	—	—	—
(b) Under the School Attendance Byelaws ... ..	—	—	—	—

TABLE V. AVERAGE HEIGHTS AND WEIGHTS.

Age	Total Number Examined.		Nursery Schools				Entrants, Intermediates, Leavers and Other Ages.				Candidates for Junior Scholarships.				Secondary Schools.			
			Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.	
	Males.	Females.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.	Height Cents.	Weight Kilos.
2	150	150	85.5	12.8	85.4	12.5	—	—	—	—	—	—	—	—	—	—	—	—
3	281	316	93.3	14.8	92.7	14.4	96.5	16.0	95.2	15.3	—	—	—	—	—	—	—	—
4	612	469	97.7	16.3	97.5	15.6	102.1	17.4	100.7	16.8	—	—	—	—	—	—	—	—
5	856	815	105.6	17.9	104.4	17.2	107.3	18.9	106.7	18.3	—	—	—	—	—	—	—	—
6	362	327	—	—	—	—	112.3	20.5	111.4	19.7	—	—	—	—	—	—	—	—
7	192	181	—	—	—	—	119.3	23.2	117.7	22.0	—	—	—	—	—	—	—	—
8	1369	1301	—	—	—	—	124.5	25.5	123.5	24.6	—	—	—	—	—	—	—	—
9	370	333	—	—	—	—	128.1	27.2	127.1	26.6	—	—	—	—	—	—	—	—
10	497	501	—	—	—	—	132.4	29.7	132.3	29.2	136.6	31.3	137.0	31.2	138.5	31.9	140.9	35.3
11	551	586	—	—	—	—	137.2	32.8	138.0	33.1	138.5	32.3	139.6	33.0	143.6	35.2	144.5	37.0
12	1530	1916	—	—	—	—	142.2	36.1	144.1	37.2	140.5	36.5	144.5	36.7	145.2	36.8	148.6	40.2
13	848	797	—	—	—	—	144.5	38.1	148.6	40.6	—	—	—	—	150.0	40.9	153.6	44.8
14	539	509	—	—	—	—	154.1	43.4	156.9	47.	—	—	—	—	157.7	45.8	157.4	49.6
15	521	400	—	—	—	—	—	—	—	—	—	—	—	—	165.1	51.4	159.7	51.2
16	155	127	—	—	—	—	—	—	—	—	—	—	—	—	168.2	55.6	160.0	53.7

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